



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

ALUMNI REPORTS No. 1.

Cornell University

Its Condition and Needs in 1884

*A REPORT THEREON MADE TO THE ALUMNI AT
THEIR REQUEST*

BY

JAMES FRASER GLUCK, A. B.

ONE OF THE ALUMNI TRUSTEES

Alumni retain and somewhat liberally exercise the traditional privileges of all children to freely criticize the ways of the household. Sometimes their fault-finding is but the result of their jealous regard for the honor of their college and an indirect expression of the fervor of their zeal for its more abundant prosperity.

—Noah Porter.

PRINTED BY ORDER OF THE ALUMNI

1884

378.74 C61e9



518.11
C81e3

ALUMNI REPORTS No. 1.

Cornell University

Its Condition and Needs in 1884

*A REPORT THEREON MADE TO THE ALUMNI AT
THEIR REQUEST*

BY

JAMES FRASER GLUCK, A. B.

ONE OF THE ALUMNI TRUSTEES

STANFORD LIBRARY

Alumni retain and somewhat liberally exercise the traditional privileges of all children to freely criticise the ways of the household. Sometimes their fault-finding is but the result of their jealous regard for the honor of their college and an indirect expression of the fervor of their zeal for its more abundant prosperity.

—Noah Porter.

PRINTED BY ORDER OF THE ALUMNI

1884

We

325305

YNA 98LJ 09079AT2



Matthews, Northrup & Co., Buffalo, N. Y.

I desire to acknowledge the obligations I am under to President White for his uniform kindness in communicating to me any information I desired relating to the university; to Mr. E. L. Williams, the acting treasurer of the university, for prompt and complete compliance with my requests for information from the university books and papers; to Prof. Fuertes, for information contained in the schedules relating to the engineering departments of the various colleges; to Mr. George L. Burr, for the preparation of the schedules relating to the women-students, and to the number of students under each instructor in the university; and to Mr. George W. Harris, acting librarian, for the preparation of the list of the donors to the library during the present year.

JAMES FRASER GLUCK.

ITHACA, April 17, 1884.

JAMES F. GLUCK, ESQ., BUFFALO, N. Y.

Dear Sir,—At a meeting of the Executive Committee of the Associate Alumni of Cornell University, held April 15, 1884, the following action was taken :

Resolved, That this Executive Committee recommend to the Associate Alumni of Cornell University that the trustee last elected by the alumni, at the end of the first year of his office, make a written report on the condition and needs of the university to the Associate Alumni at the annual meeting in Ithaca ; said report to be submitted in writing to the other alumni trustees, and their dissent or approval to be endorsed thereon before presentation.

Resolved, That a copy of this resolution be forwarded to James Fraser Gluck, and that he be requested to prepare a report in accordance with the terms of the resolution.

The foregoing resolutions, from the minutes of the Executive Committee, I have the honor to transmit to you herewith.

I am yours, etc.,

G. W. HARRIS,

Secretary of the Executive Committee.

This report was submitted in writing to the other alumni trustees prior to presentation. No formal dissent was indicated.

The portions of the within report deemed the most important were read at the meeting of the Associate Alumni of Cornell University at their annual meeting in June, at the university. After the report had been read the following resolutions were passed :

Resolved, That the report of Mr. Gluck be received, and be printed for distribution among the alumni, but that this resolution be not deemed an indorsement of all the views expressed in the report.

At a later stage of the meeting the recommendation of the Executive Committee concerning an annual report to the association, as amended by the motion of Mr. Vandewater, as follows :

RESOLUTION OF 1884.

Resolved, That the trustee last elected by the alumni, at the end of the first year of his office, make a report on the condition and needs of the university to the Associate Alumni at their annual meeting in Ithaca ; said report to be submitted in writing to the other alumni trustees, and their dissent or approval to be indorsed thereon before presentation.

Resolved, That such report be printed by the alumni, and that it shall not be considered as in any way indorsing the individual opinions of the members of the association.

was adopted, with the understanding that this resolution be printed with the publication of such report, under the caption of " Resolution of 1884."

G. WM. HARRIS,

Recording Secretary.

TABLE OF CONTENTS.

	PAGE.
INTRODUCTION,	9
I.—OF THE CORRECTION OF ERRONEOUS IMPRESSIONS CONCERNING THE UNIVERSITY: CONCERNING —	
The object, scope and aim of the university,	11
The voluntary labor system,	15
Special university ideas,	17
Management and disposition of the university funds,	24
Salaries of professors,	26
The executive committee,	29
The faculty,	33
The conduct and standing of the students,	34
The religious status of the university,	37
Alumni criticism of the university,	43
II.—CONDITION AND NEEDS OF THE UNIVERSITY:	
Graduate students,	45
Optional and special students,	46
Higher education of women,	46
Instructors in the university,	49
Physical culture,	50
Admission and classification of students,	51
Tuition,	54
Progress and standing of the departments,	55
Philosophy,	56
Greek,	57
Latin,	59
Anglo-Saxon,	59
Sanskrit and Chinese,	59
South European languages,	59
German,	59
French,	60
History (general),	60
American history,	61
English literature (including rhetoric and oratory),	61
Physics,	62

	PAGE.
Biology,	63
Chemistry,	63
Geology,	63
Mathematics,	64
Political economy,	64
Civil engineering,	65
Mechanic arts,	67
Veterinary science,	68
Architecture,	68
Agriculture,	68
Botany,	69
Library,	69
Military department,	70
Condition of class-rooms,	71
General condition of the university,	71

III.—PROGRESS MADE DURING THE PRESENT YEAR :

Fellowships and scholarships,	71
Lady principal of Sage College,	72
Women-students,	72
University buildings and grounds,	73
The faculty,	74
New collections and gifts,	75
Meetings of the board of trustees,	76
President's and professors' reports,	76

IV.—METHODS IN WHICH THE ALUMNI CAN AID THE UNIVERSITY :

Annual reports by alumni trustees,	77
State students,	78
Alumni scholarships,	84
Alumni publications,	86
Conclusion,	86

APPENDIX—Schedules showing :

Comparative standing of engineering department at Cornell with same department at other colleges,	91
Number of students and of graduates at Cornell by years and courses,	93
Places from which students have come to Cornell,	94
Number of students at Cornell pursuing the various studies of the university curriculum during the academic year 1882-'83,	96
Women students and graduates at Cornell by years and by courses,	100
Number of students at Cornell and other colleges in this State in 1882, and also of the number of graduates therein in 1882, and of the total number of graduates of each college,	101
Number of instructors at Cornell and other principal colleges in this State in 1882,	101
Number of professors, associate, assistant and non-resident professors and tutors each year in Cornell,	101

	PAGE.
Progress and development of the departments of this university in the number and kind of instructors in each department,	102
Number of instructors in the various departments of Cornell and also Harvard, Yale, Ann Arbor, Johns Hopkins, Pennsylvania, Columbia, Hamilton, Amherst, Williams, Dartmouth and Princeton,	105
Required studies for admission to Cornell, Harvard, Yale and Michigan :	
The course in arts,	106
Agriculture, architecture, engineering and mechanic arts at Cornell; agriculture and engineering at Yale, and engineering at Harvard and Michigan,	107
Science, science and letters, mathematics, chemistry, physics and analytical chemistry at Cornell; chemistry, mathematics and physics and astronomy at Harvard; chemistry at Yale and science at Michigan,	108
Philosophy, literature, history and political science at Cornell; philosophy at Yale and Michigan,	109
Natural history at Cornell, Harvard and Yale,	110
Medical preparatory at Cornell and Yale,	111
Recent publications by officers of Cornell University,	112
List of donors to Cornell University Library during the present year,	114
Property owned or held in trust by the university,	117
Revenue (from August 1, 1883, to June 1, 1884),	117
Expenditures (August 1, 1883, to June 1, 1884),	117
Tabular statement of the annual income of the university from 1874,	118
Tabular statement of annual expenditure of university from 1874,	119
Cornell University donation list,	120
Amount expended by the university on buildings, and collections and amounts donated to it therefor,	122
Income and expenditure in 1882 of Cornell and of other principal colleges in this State,	123
Financial condition of Cornell and of other colleges in this State in 1882,	123
Amount distributed annually in various colleges in scholarships, fellowships and prizes,	124
ADDENDA—Additional information concerning the university from the president's last report : concerning —	
Agricultural department, architectural department, Sibley College of mechanic arts, geological department, buildings,	125

	PAGE.
Biology,	63
Chemistry,	63
Geology,	63
Mathematics,	64
Political economy,	64
Civil engineering,	65
Mechanic arts,	67
Veterinary science,	68
Architecture,	68
Agriculture,	68
Botany,	69
Library,	69
Military department,	70
Condition of class-rooms,	71
General condition of the university,	71

III.—PROGRESS MADE DURING THE PRESENT YEAR :

Fellowships and scholarships,	71
Lady principal of Sage College,	72
Women-students,	72
University buildings and grounds,	73
The faculty,	74
New collections and gifts,	75
Meetings of the board of trustees,	76
President's and professors' reports,	76

IV.—METHODS IN WHICH THE ALUMNI CAN AID THE UNIVERSITY :

Annual reports by alumni trustees,	77
State students,	78
Alumni scholarships,	84
Alumni publications,	86
Conclusion,	86

APPENDIX—Schedules showing :

Comparative standing of engineering department at Cornell with same department at other colleges,	91
Number of students and of graduates at Cornell by years and courses,	93
Places from which students have come to Cornell,	94
Number of students at Cornell pursuing the various studies of the university curriculum during the academic year 1882-'83,	96
Women students and graduates at Cornell by years and by courses,	100
Number of students at Cornell and other colleges in this State in 1882, and also of the number of graduates therein in 1882, and of the total number of graduates of each college,	101
Number of instructors at Cornell and other principal colleges in this State in 1882,	101
Number of professors, associate, assistant and non-resident professors and tutors each year in Cornell,	101

	PAGE.
Progress and development of the departments of this university in the number and kind of instructors in each department,	102
Number of instructors in the various departments of Cornell and also Harvard, Yale, Ann Arbor, Johns Hopkins, Pennsylvania, Columbia, Hamilton, Amherst, Williams, Dartmouth and Princeton,	105
Required studies for admission to Cornell, Harvard, Yale and Michigan :	
The course in arts,	106
Agriculture, architecture, engineering and mechanic arts at Cornell; agriculture and engineering at Yale, and engineering at Harvard and Michigan,	107
Science, science and letters, mathematics, chemistry, physics and analytical chemistry at Cornell; chemistry, mathematics and physics and astronomy at Harvard; chemistry at Yale and science at Michigan,	108
Philosophy, literature, history and political science at Cornell; philosophy at Yale and Michigan,	109
Natural history at Cornell, Harvard and Yale,	110
Medical preparatory at Cornell and Yale,	111
Recent publications by officers of Cornell University,	112
List of donors to Cornell University Library during the present year,	114
Property owned or held in trust by the university,	117
Revenue (from August 1, 1883, to June 1, 1884),	117
Expenditures (August 1, 1883, to June 1, 1884),	117
Tabular statement of the annual income of the university from 1874,	118
Tabular statement of annual expenditure of university from 1874,	119
Cornell University donation list,	120
Amount expended by the university on buildings, and collections and amounts donated to it therefor,	122
Income and expenditure in 1882 of Cornell and of other principal colleges in this State,	123
Financial condition of Cornell and of other colleges in this State in 1882,	123
Amount distributed annually in various colleges in scholarships, fellowships and prizes,	124
ADDENDA—Additional information concerning the university from the president's last report : concerning —	
Agricultural department, architectural department, Sibley College of mechanic arts, geological department, buildings,	125

INTRODUCTION.

AT the outset it is important to determine what a report of this character should fairly contain; that may serve to explain the absence of certain features, by some, perhaps, considered essential.

In his report to the New-York alumni last year, Mr. Warner said that he considered it the first duty of an alumni trustee to inform himself in reference to the university, his next, to inform the alumni.

I do not agree with Mr. Warner in this conception of the duty of an alumni trustee in the respect indicated, and, therefore, my report will not touch upon many points occupying considerable space in his. I agree, of course, with him in considering it the first duty of a trustee to inform himself in reference to the university, but the *next* duty of an alumni trustee I believe to be to point out to his colleagues in the board defects he may have discovered, and to endeavor to induce them to coöperate with him in lessening or removing them; he must also weigh carefully and guard jealously the disposition of the trust fund, and in all just ways endeavor to increase it.

The foregoing, I think, embrace all his usual duties.

When and what should he report to the alumni? If he discovers that impressions prevail among the alumni—impressions that the fundamental ideas—the purposes of the institution, as defined in its organic law, are not being carried out—impressions that the university is not doing as well or is not managed as wisely as it should be, *and such impressions are erroneous*, then I conceive it to be the duty of the trustee to correct these false impressions. If, in addition to this, the trustee can communicate to the alumni information concerning the university which will redound to its credit, I think he should do so, because its promulgation will aid the institution and encourage the alumni.

But suppose after examination the trustee finds the treasury of the

university bankrupt, many of its professors incompetent, and its trustees ignorant of the real purposes of the trust, is it his duty, *as soon as he discovers* these facts, to communicate them to the alumni? In my opinion—no. I think the only time he can rightfully do so is *when he is fully satisfied that he can do nothing* that will replenish the treasury, and when he feels he is utterly powerless to remove its incompetent professors, or to bring back the university to its real purposes; and when he becomes satisfied of these things he should go farther: he should not only inform the alumni of these facts, *he should resign his position*, and the information should be given to the alumni *as the explanation of the act*.

For consider,—what possible good could it do to inform the alumni *before*? The trustee is their representative, and if he cannot help himself, surely they cannot help him. What beneficent object is accomplished in heralding professors as incompetent from one end of the land to the other as long as it is possible to have them removed quietly without unnecessary injury to them and without damage to the institution? What good is accomplished by the announcement to the alumni that the fundamental ideas of the institution are disregarded, if by the trustee's exertions in the board the board may be induced to carry them out?

It will be seen, therefore, that the report of an alumni trustee to the alumni should concern itself with correcting erroneous ideas derogatory to the institution, suggesting to the alumni the methods in which they may aid, and imparting to them such information as will redound to the credit of the institution. If the university in many respects is not as good as the alumni suppose it is, but the defects are such that can be remedied, then it is the trustee's duty to endeavor to remedy them. If the defects were stated, such statements would help neither the alumni nor the trustee, nor remedy the defects. If he finds he cannot, or that the other trustees will not, remedy them, then, as I have said, he should resign, and then, and not until then, should he inform the alumni. Personal adverse criticism of president, trustees or professors should certainly not find a prominent place in an alumni trustee report. Such remarks so made almost always fail of their purpose, do the persons attacked great and needless harm, and create much personal ill-will between a trustee and his associates, and thus tend greatly to destroy his usefulness in the board as a representative of the alumni.



CORNELL UNIVERSITY;

ITS CONDITION AND NEEDS IN 1884.

THIS report will then comprise: I. Correction of erroneous impressions concerning the university. II. Condition and needs of the university. III. Progress made during the present year. IV. Methods in which the alumni can aid the university.

I. OF THE CORRECTION OF ERRONEOUS IMPRESSIONS CONCERNING THE UNIVERSITY.

OF ERRONEOUS IMPRESSIONS CONCERNING THE OBJECT, SCOPE AND AIM OF THE UNIVERSITY.

The criticism has been made upon the university that it is really not fulfilling the objects of its charter, which, it is alleged, are that it should be an agricultural college and a polytechnic school, and that therefore the expenditure of considerable sums upon other departments is a perversion of trust. It is really surprising to find the number of people who express themselves in this way, and it is an erroneous impression from which even many of the alumni are not exempt. Let us examine this subject and endeavor to arrive at correct ideas concerning it:

The objects, aims and scope of the university may be found primarily defined in the Act of Congress of the United States (Chap. cxxx. of the Laws of the United States, 1862), and in the Act of the Legislature of the State of New-York (Chap. 535 of the Laws of New-York, 1865), establishing the university.

The public statements of those persons through whose influence and wisdom, and by whose munificence, the institution was established furnish also some data therefor.

If those objects and aims were even now clearly understood by all persons interested in the university it would be taking up space and time needlessly to review them; that they are *not* clearly understood is evident from the opposition,—sincere and well-meant, but still mistaken opposition—manifested to plans proposed concerning its future course, which, if adopted, would tend largely to the furtherance of the primary aims of the university.

What, then, is the object, aim and scope of the university as defined by Congress? It is the establishment of an institution where *the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the State may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life.*

The words above italicized were repeated verbatim in the State Act (section 4), with this addition: “But such other branches of science and knowledge may be embraced in the plan of instruction and investigation pertaining to the university as the trustees may deem useful and proper.”

Condensing these two statements it is at once apparent that the institution provided for was never intended to be a mere Agricultural College, or a Polytechnic Institute, or an Industrial School, but an institution where such studies should be pursued as would, in the judgment of the trustees, conduce to the *liberal* and *practical* education of the *industrial* classes.

The choice of studies was left discretionary with the judgment of the trustees, guided only by the single consideration that such studies should be for the benefit of the *industrial* classes. In other words, the institution was not primarily intended to be a college for the education of rich men's sons for a life of elegant leisure, or a charity school for the support of the hopelessly indigent, but an institution where the middle, the industrial, classes might receive an education that should be at once practical *and* liberal, scientific *and* classical—an education that would tend to promote their usefulness as citizens, and their culture as men and women, not only in the pursuits, the avocations of life, but in the professions also.

The idea here advanced of the object and aim of the institution is

not new or original, however novel it may seem. It was expressed in substance, early in the history of the institution, by President White, as follows: "In the arrangement of departments, and in the provision for them, there is one test, very simple and very effectual — the original law of Congress. . . . We must never lose sight of that great body of men, to whose mental needs the act makes special reference, and of whom it speaks as 'the industrial classes.' . . . The original law will not fetter us in our endeavors to give . . . the most advanced university privileges. Having guarded us from a common error, and secured certain great branches of university education, it gives us, by express declaration, the largest university scope — only insisting that we keep in view the real wants of this land and people."

The same idea was expressed by Mr. Cornell in his speech at the inauguration of the university, when he said: "We did expect to have commenced an institution . . . which will place at the disposal of the industrial and productive classes of society the best facilities for the acquirement of practical knowledge and mental culture."

It was most eloquently expressed on the same occasion in the language of George William Curtis, in a passage well worthy of reproduction here, as follows:

"It is now ten years since I was in the city of Ann Arbor. . . . I sat at night talking with my friend, a New-York scholar, Professor of History in that institution, and one of the men who have given that institution its great place in this country. There, in the warmth and confidence of his friendship, he unfolded to me his idea of the great work that should be done in the great State of New-York. 'Surely,' he said, 'in the greatest of States there should be the greatest of universities; in Central New-York there should arise an university which, by the amplitude of its endowments, and by the whole scope of its intended sphere, by the character of the studies in the whole scope of its curriculum, should satisfy the wants of the hour. More than this, it should begin at the beginning. It should take hold of the chief interest of this country, which is agriculture. Then it should rise, step by step, grade by grade, until it fulfilled the highest ideal of what a university could be.' It was also his intention that there should be no man, wherever he might be, on the other side of the ocean or on this side, who might be a fitting teacher of men, who should not be drawn within the sphere of that university."

Such are the objects, aims and scope of the university as expressed

in the acts of Congress and of the Legislature of this State, in the lucid language of its founder, and the noble conception of its president.

The document recently published by the university, entitled "Proceedings at the unveiling of the portrait of the Hon. Justin S. Morrill, senator, etc., at the annual commencement of Cornell University, June 20, 1883," is interesting as containing the conception of the object, scope and aim of the institution, as re-defined by President White, and also by the author of the Act of Congress. The foregoing part of this report was written before the address of the president was seen by me. It afforded me great pleasure to find in the recent language of the president so clear an expression of what the university was *not* intended to be, although some of its friends conceive it should be just what it ought not to be.

The president said: "The Act of Congress did not provide simply for agricultural colleges, nor simply for colleges of the mechanic arts. The intention was broader and deeper than that, . . . it was to provide fully for an industrial, scientific, and general education, suited to our land and time, an education in which scientific and industrial education should be knit into its very core, while other studies should also be provided for. . . . The act of 1862 was a noble, comprehensive scheme, looking first of all at the industries of the nation, but at the same time insisting on provision for the broadest scientific and general culture."

Senator Morrill defined the object, scope and aim of the grant establishing this and other universities to be "to furnish in every State a sound and liberal education to all who may call for it, and not leave it as a monopoly to decorate only a favored few. The active, energetic character of the American people, and the base of our institutions demanded, if I may use the figure, a greater infusion of 'iron in the blood' than that found in the inherited systems of ancient universities, and demanded something beyond merely intellectual drill—something for human nature's daily practical use. Is it not some improvement . . . to bring out the living languages as the equals of the dead, . . . and to emancipate the sciences from longer servitude as fags to metaphysics and poetry?"

"The Greek and Latin scholar is eminently respectable, but he cannot afford to stand aloof from the author of the electric telegraph, nor from the chemist and mineralogist who makes steel cheaper than iron, nor from the engineer of the Brooklyn Bridge. Right willingly let Homer and Tacitus, Demosthenes and Cicero be raised to the

skies, but do not drag down Archimedes and Michael Angelo, Franklin and Whitney. . . . The civilization and comfort of man depend upon the progress of the arts and of diversified industries."

VOLUNTARY LABOR SYSTEM.

Concerning this subject also erroneous impressions prevail, which it is desirable should be removed.

It has been said that the scheme was not fairly tried—that the inducements held out in the official documents of the university were too flattering and well calculated to mislead and deceive, and, finally, that the labor system continued to be announced in the Registers as operative and existing, long after it had been in fact abandoned, and that, too, when it was really an *essential* part of the institution. Let us examine the history of the labor system and determine, if we can, the correctness of these criticisms:

It is, of course, first of all apparent from the above remarks on the real object and aim of the university that the labor system formed *no part* of the original plan of the university, and was not embraced within its original scope and purpose as defined in its charter and in the act of Congress. It was a grafted idea—an added conception, not necessary for the progress of the institution according to the requirements of its organic law, and the success or failure of which in nowise affected the stability or the success of the institution. In fact the opinion that the labor system formed part of the *essential* plan and scheme of the institution indicates that the real scope of the institution, as expressed in its organic law, was by the persons so holding but dimly and inaccurately conceived. Such persons in effect read for the words "industrial classes" in the Act of Congress the words "*indigent* classes," and set a premium upon poverty rather than intelligence.

The labor system, as a means of acquiring an education, was regarded with much favor by Mr. Cornell, and was perhaps more fondly cherished by him than by any other person connected with the establishment of the university. In his address at the inauguration he stated that he hoped that the facilities of the institution would be offered "*on such terms as the limited means of the most humble could afford.*" And again: "I hope we have made the beginning of an institution which will prove highly beneficial to the *poor* young men and the *poor* young women of our country." . . . "In the course of time we hope to reach such a state of perfection as will enable anyone by

earnest *labor* to secure a thorough practical, scientific or classical *education*."

In his mind was probably formed the conception of the plan; but as we have seen it was in no wise an *essential* part of the university system as defined by its organic law.

Now as to the "misleading and deceiving representations."

In the "Report of the Committee on Organization" the scheme was recommended by President White, but with expressions of doubt as to its ultimate success, except in the case of *skilled* labor conjoined with great strength of physical constitution on the part of the labor students. And the same idea was expressed by the president in his inauguration speech. The announcement in the first Register (1868-'69, p. 32), was very guarded: "No young man," it was stated, "should come *without resources*. *It was not always possible to set a student at work at once*; extra expenses must be considered;" and, in conclusion, it is said that "the university authorities could not recommend any young man to come relying *entirely* on unskilled manual labor for support." In other words, if the university had work, it would give it, otherwise, not. The same announcement was repeated substantially in the next Register. In the next Register (1870-'71), the statement was made: "It must be distinctly understood that the university does not *guarantee* employment to any student," and that "the number of young men applying for such labor has constantly *exceeded the number whom the university is able to employ*" (pp. 62, 63). In 1872-'73 the president made a report on the progress made in this scheme, in which he declared his belief that the university itself could legitimately afford employment to only a small number.

The president said: "But it will be observed that this will not provide for a very large number of working students. . . . It is to be hoped that *private* enterprise will, ere long, avail itself of the water-power in the immediate vicinity of the university grounds and establish a manufacturing establishment where student-labor may be profitably employed. . . . but, as declared in my inaugural address, I hold firmly that the creation of such an establishment is *not* a legitimate university matter, but rather to be expected from private enterprise."*

The announcement in the Registers continued substantially the

* President's Report, 1872. For further early official statements as to the labor system, see Report on Organization, pp. 37, 38; Cornell University: Second General Announcement, 1868, p. 15; Cornell University: What it is and is not, p. 24.

same as that in 1870, until 1880, when the scheme ceased to be mentioned.

In view of the above it cannot be fairly said that the official statements were "too flattering and well calculated to mislead and deceive." The experiment had a trial so far as the university could legitimately try it, and as a scheme for enabling *many* students to obtain an education it failed. Had it a fair trial? It must be conceded that, considering the limited scope of legitimate university endeavor, it had. The amounts expended by the university upon student-labor have never been made public. At my request the treasurer of the university has furnished to me the information. It may interest the alumni. In 1868-'69 there was paid students for labor \$8,423.50. In 1869-'70, \$10,234.98. In 1870-'71, \$9,179.89. In 1871-'72, \$5,936.44. In 1872-'73, \$5,841.71. In 1873-'74, \$5,194.46. In 1874-'75, \$3,925.11. In 1875-'76, \$4,728.41. In 1876-'77, \$3,319.32. In 1877-'78, \$2,490.68. In 1878-'79, \$2,093.56. In 1879-'80, \$1,905.39. In 1880-'81, \$1,698.62. In 1881-'82, \$1,921.70. In 1882-'83, \$1,410.00. Total, \$68,301.77. So that it will appear that, while the scheme is not now announced in the Register, *the labor system still continues in the university* to a limited degree, and also that a very considerable amount has been expended upon the experiment. The scheme, in the extended scope its friends hoped it might have, and dear as it was to Mr. Cornell's heart, has failed; but the system of scholarships and fellowships and loan funds just established, will, it is conceived, in another way meet his hope that the poor young men and women of the land may be aided to an education in the university he so nobly and generously endowed.

The conclusions reached are, therefore, that the success or failure of the labor system in nowise affects the integrity of the real scope and object of the university—that the announcements made concerning it were not calculated to deceive or mislead; that the experiment has been given a fair trial, and that a just criticism finds nothing to condemn in the conduct of the university in respect thereto.

SPECIAL UNIVERSITY IDEAS.—FUNDAMENTAL AND GOVERNMENTAL.

These are the special ideas grafted upon the original plan of the institution by President White, and publicly first defined in the Register of 1868-'69, and the detailed statement of which disappear with the Register of 1881. These are non-resident professors; liberty in the choice of studies; preference to be given to studies practically useful; commercial mathematics; no marking system; unsectarian-

ism government of students by themselves; equality in different courses of study.

Now concerning these, erroneous impressions prevail. Let us examine these carefully and endeavor to ascertain their status in the university.

And, first, of the non-resident professors. It appears by the schedules annexed that, in 1872, the system reached its maximum, so far as numbers were concerned; from that date until 1880, the number gradually diminished until it almost disappeared; in 1881, there was an increase in the number of such professors, and the number then reached still continues.

It should, however, in fairness, be said that the *apparent* diminution in the number of such professors did not actually take place, as, during the early years of the university, the names appearing in the register as non-resident professors indicated those that the university would like to have had, rather than those who actually came.

Is the idea itself a good one? That depends upon the object desired to be obtained and the method pursued. If the students were examined upon the lectures delivered, or if the lectures were preceded by a required course of reading of which the lectures acted as the consummation, I conceive the usefulness of the system as a means of intellectual discipline would be considerably increased; without these requirements they are to many, I fear, mere intellectual dissipation: the confections of the college course.

The next "special ideas" mentioned are "university liberty in the choice of studies," and "preference to be given to studies practically useful." Too much credit cannot be given the president and faculty of this university for the successful introduction and establishment of these ideas as important factors in American education. The ideas are not original, of course, with the institution, but their liberal adoption and success here first demonstrated their worth and power. Mr. Thwing, with his usual inaccuracy, ascribes the successful introduction of these ideas to the present president of Harvard.* One of the ablest instructors in the country predicted their failure in this institution, and strenuously opposed their claims to recognition; and yet lives to behold their complete establishment in the conservative institution of which he is still the honored president. I refer, of course, to President Porter, of Yale College, who, in his work on "American Colleges and the American Public," pp. 9-15, cites triumphantly the

* See "American Colleges, their Students and Work," p. 20.

failures of the elective systems proposed in Harvard in 1825, in Amherst in 1826, in Yale in 1827, in the University of Vermont in 1829, in Harvard again in 1841 and in 1850, and in Brown University in 1850, as precedents for the future failure of the system in Cornell University, as outlined in the "Report of the Committee on Organization," which he says is, in the ideas it advances, "strikingly like" the views expressed in the report presented to the trustees of Amherst College in 1826. In the report made by the Executive Committee of the alumni of Yale College in 1876, on p. 4, the following significant statement appears: "The most important step of the past year has been the adoption in a part of the college course *of the optional system*;" in the report in 1877, it is said: "The first year of the experiment of the optional system has proved, in most respects, *highly satisfactory*. The plan has had . . . the best effect upon the work of the students, . . . and the work has been done with *more continuity and more enthusiasm*." In the report of 1876, p. 1, it is said: "The optional system . . . seems to commend itself to the judgment of the faculty as *the true solution* of the difficulties arising from an over-crowded curriculum."

Further illustrations of the extension and success of the ideas may be found in the eulogistic remarks of President Carter, of Williams College, in his last (1883) report, pp. 5-6; in President Eliot's report, 1880-1, on pp. 57-59; and in the last (1883) report of the Provosts of the University of Pennsylvania, pp. 19-20. The systematic effort to modernize the course of instruction at Harvard College in the line of the elective theory has reached a point where the study of Greek, Latin and mathematics is made optional from the beginning of the freshman year. A student at Harvard may, after this year, pursue the study of the dead languages under the most favorable possible conditions throughout his four years' course, or be content with what he has mastered in order to obtain admission to the college, and devote himself to modern languages, science, philosophy, political economy, etc.

At the Harvard alumni dinner in Cambridge, President Eliot said at the conclusion of his speech: "The recent extension of the elective system to the freshman year, by a decisive majority in the college faculty—by far the most important event of the year—supplies new evidence that the faculty adheres with firm conviction to the general method of discipline which has for some time characterized the university. In a few years it will be fair to ask what the fruits are of the new methods. I think I begin to see them in the pulpit, at the bar,

in literature and science, and last, but not least, in public life." This declaration was greeted with prolonged applause by the great company present. And speaking of the recent changes in the requirements for admission at Harvard, and the extension of the elective system so as to include Latin and Greek, even in the freshman year, it is interesting to note that Yale is following cautiously along the same line of development. The *Hartford Courant* says: "Yale's changes are in the requirement of some French or German as necessary to admission, and then a slight reduction, say one-fourth, in the time given to Greek and Latin in the first two years of the course. After that period the field of optional study is much enlarged, and the student may take modern or ancient languages."

The next "special idea" proposed was that of the study of commercial mathematics, or, as it was originally called, "The Department of Commerce and Trade."*

The idea was to establish a refined and thorough commercial college within the university.

The idea was referred to as a "special feature" in the Registers of 1868-'69, p. 28, 1869-'70, p. 56, 1870-'71, p. 56, after which it disappears.

The next "special idea" mentioned was no marking system. This idea has been successfully maintained.

The next "special idea" was the government of students by themselves. Much stress was laid upon this at the inauguration of the university,† and the idea has, since the return of President White, been faithfully adhered to with the best results. It was recently stated by one whose genuine interest in the university is unquestioned, that "only a show was kept up of manly independence in the university; that there was, in fact, a great deal of petty government indulged in by the faculty;" so much so, indeed, that "the faculty was held in open contempt" by the students.‡ Let me say, in reference to this, that I had the pleasure of meeting, during a recent visit to Ithaca, a large number of the representative undergraduates of the university, and of talking to them in an entirely confidential way and very fully on this subject. I know it can give no one greater pleasure than the gentleman making

* Report of the Committee on Organization, presented to the trustees of the Cornell University, 1867, p. 7.

† See Report on Organization, pp. 36-37; Prof. Russell's address, as given in the Register of 1869-'70, p. 35; Prof. Agassiz' address, *ibid*, p. 46; see also Register, 1871-'72, p. 40; 1872-'73, p. 51; 1873-'74, p. 80.

‡ Mr. Warner's report to the New-York alumni, 1883, p. 6.

the above statement to learn that the condition of affairs represented by him as existing last year has this year absolutely no existence. The faculty, as a body, in its methods of dealing with students is held in the greatest respect by the undergraduates, and the beneficial effect of the treatment the students receive is made manifest in the unparalleled gentlemanliness and the excellent behavior of the undergraduates during the present year, when, in the midst of disturbance and insubordination in almost all the principal colleges in the country, the president of this university is able to say that "there has not been presented to the faculty, during the entire year thus far, a single breach of discipline. Neither the attention of the faculty, nor my own attention, has been called during the entire year to any offense of any sort, for which any faculty in the land would deem it necessary even to reprimand a student." *

The "special idea" next mentioned is "unsectarianism." This subject is treated of below.

The "special idea" next mentioned was "equality between different courses of study." This idea has always been successfully maintained, and is becoming a recognized principle in American education. †

On the whole, the impartial verdict must be that the university has been, and is, singularly true to most of these special ideas, which at first differentiated it so widely from other institutions of learning, and which still remain sources of its strength, aiding its development, and diffusing themselves more and more widely through the higher education of America.

ALUMNI TRUSTEES.—LAW OF 1881.

The next subject to be noticed upon which erroneous ideas prevail is that the power which had properly belonged to the alumni trustees was much curtailed by the law of 1881. There are two aspects to this subject: one, that by the law of 1881 the power of the alumni trustees was *theoretically* diminished, the other is that, in consequence of this, their power was *in fact* diminished by the conduct of the other trustees. Mr. Warner in his report to the New-York alumni voices these

* Extract from President White's address at the first annual banquet of the Cornell Association of Western New-York, Buffalo, April 18, 1884.

† See the recent publications of "A College Fetish," by Charles Francis Adams, Jr., and "What is a Liberal Education?" by President Charles W. Eliot, in *The Century* for June, 1884.

opinions when he says that "the demand among the alumni was universal that to the alumni be restored the rights taken away by the legislation of July, 1881."

A candid consideration of the subject will show that the gentlemen holding such views have inadvertently fallen into error, and that the views they entertain are not in accord with the facts. Let us examine the subject :

It is proper to observe in this connection that in the original charter of the university (Laws N. Y., 1865, Chap. 585), no provision whatever was made for the election of alumni trustees by the alumni. The board was, as were *all* the governing college boards of the country at that time, a close corporation, self-perpetuating and unrestricted as to their official term.

In the report on organization, the recommendation was made by President White that the term of all trustees be limited to six years, and that as soon as the graduates of the institution shall number one hundred then and thereafter the alumni should, each year, elect one of the three trustees. The recommendation was also made that a *two-thirds* vote of the board should be required to re-elect a former trustee. (Report on Organization, p. 26.)

These suggestions were adopted by the board of trustees and embodied in the amended act (Laws N. Y., 1867, Chap. 763). The report also recommended that by the same legislation the number of absences from meetings of the board allowed by the Revised Statutes, be diminished. "It is surely not too much to ask," continues the report, "that men having the honor of a position in a board of trustees like this should discharge the duties, or, if they cannot discharge them, they give place to those who can. *On a full attendance upon the meetings of the board depends in a great measure the success of this noble enterprise.*" This last suggestion was not embodied in the amended act.

Now it is important to observe just how much power was intended to be given to the alumni trustees. It is manifest that if *all* the members of the board, except the alumni trustees, desired the re-election of a former trustee, the alumni trustees could not, by voting solidly against it, *prevent* such re-election, and it was manifestly intended by the proposed plan that *all* the other trustees should at least be present. This act then gave the alumni trustees *no power to dictate* concerning the re-election of former trustees, if such trustees voted together; that is, it was *intended* that two-thirds of the board should be self-perpetuating, *if it so desired*, and however much the alumni

trustees were opposed to it, it was not intended they should be given power to prevent it.

In 1881, by chapter 611 of the laws of that year, the concurrence of eight members only was made necessary to re-elect a former trustee, *i. e.*, the number necessary to re-elect was reduced from ten to eight members — a difference of two only. The *board* of trustees being expressly made, by the amended act, the ten persons named in the original charter with five others elected under the provisions of the amended act.

I am assured by gentlemen in whose integrity and veracity I have the highest confidence that the change in the law reducing the number from ten to eight was made simply and entirely *because* the full number of self-perpetuating trustees did not attend the meetings, and therefore, that a re-election of a former member was sometimes an impossibility, and, further, that such change was made without any intent whatever of abridging the powers of the alumni trustees, as indeed from the foregoing it is apparent it did not.

I believe the statements. Besides, as we have seen, the alumni trustees are not deprived by the amended act of any rightful power they originally had; and, speaking as one of the alumni trustees, I can only say that, in the meetings of the board which I have attended, I have had, as yet, no cause to complain that any power which rightfully belonged to me I did not have full opportunity of exercising.

So believing, I hold the statements recently made by some of the alumni relative to the repeal or modification of the law of 1881 as unjust and unfair in the extreme; as unjust, as to a certain extent the alumni enjoy their rights in the board through the courtesy and free will of the old members — they are invited to *confer*, not to *dictate*; unfair, as thereby insinuations are raised concerning the acts and motives of gentlemen by whose liberality and intense devotion the university now enjoys that portion of material prosperity which is the subject of so much present congratulation, and which forms the enduring basis of its present and future usefulness. Moreover, the complaint impliedly assumes that if the self-perpetuating trustees do decide to continue themselves, they will not listen to any suggestions that may be made by the alumni trustees, will despise their advice, and insist upon courses of conduct which will result in the decline of the university, and that, therefore, the law should be repealed or changed.

When the alumni trustees bring such complaints to the alumni it will surely be time enough for the alumni to act. I venture to assert that there will be no dissent on the part of any alumni trustee from

the statement I now make that the alumni trustees have no complaint whatever to make that as a body, they do not wield in the board as much power as is a proper and right they should, and that no distinction between alumni and self-perpetuating trustees is ever thought of or suggested for a moment in the board of trustees.

It is scarcely proper that the matter for discussion on this subject will not be longer continued. When the real situation of affairs is fairly understood by the alumni I feel sure it will not be mentioned.*

OF THE MANAGEMENT AND DISPOSITION OF THE UNIVERSITY FUNDS.

Upon this subject also, very erroneous impressions prevail among the alumni. Circulars have been sent out, with conspicuous headings "Men before Buildings," "Buildings in the Background," "A University Counts in its Professors," etc., and the impression created by many of the statements which have been made is to the effect that a very large portion of the capital of the university has been expended in the erection of buildings, while the professors have been kept on meagre salaries, which might easily have been increased, had not the rage for building seized upon and kept captive the infatuated trustees. These statements, it was conceived, received corroboration by the following statement, made by Mr. Warner in his report last year: "The amount of real estate used by the university, including library and collections, aggregating \$1,350,000, though not actually yielding money income, should be considered investments at, at least, usual interest, and the investment of actual funds to that amount must be presumed

* The following remarks by the Chicago alumni on the repeal or modification of the law are exactly to the point, just and fair: "This law amended the charter so as to make eight trustees a quorum for the election of another trustee. Theretofore, eight had been a quorum for the transaction of all business save the election of trustees, which was required ten. The change was made because of the difficulty in procuring the attendance of the larger number, it having been necessary several times to bring a sick man, Hon. J. E. Williams, from his bed to constitute a quorum. But it is contended that the charter as amended deprived the alumni representatives of a sort of absolute veto which they might before have possessed, since if these representatives wisely absented themselves, and the *ex officio* trustees were not present, the *ad hoc* trustee trustees would be powerless to elect successors. This veto power was never exercised, and was never intended to be given. To seek to take advantage of an accidental slip in the letter of the charter so as to organize regular obstruction by a minority is not to be commended. If alumni trustees are to have the veto— which a law assumed—let it be squarely accomplished by an independent law expressly intended to that object."

to have been made as the best paying one for university purposes *that the trustees could find.*" (Mr. Warner's report, 1883, p. 1.) In other words, the *trustees* have invested \$1,350,000 of *university funds* in real estate, library and collections. Prior to the statement just made it was stated that of the sum of \$1,350,000 the sum of \$350,000 was invested "in library, apparatus, collections, etc.," and the sum of \$1,000,000 in real estate, buildings, etc., used for university purposes.

In other words, the *trustees* have expended \$1,000,000 of *university funds* in buildings "as an investment," and "as the best paying one for university purposes that the trustees could find." Considering this sum, \$1,350,000 as an investment of *university funds*, "the sum of \$80,000 must be considered as used in the amount (of interest thus lost) to be charged on account of permanent educational investment." (Mr. Warner's report, p. 1.) In other words, by this investment of \$1,350,000 of *university funds*, the *trustees* have deprived the university of \$80,000 *each year*, which, had it *not* been expended on buildings, etc., might have been expended *on professors' salaries each year.**

Such is a legitimate conclusion from the language used, and such I find to be the inference drawn by those with whom I have conversed concerning the report. A careful consideration of the report, however, shows that the suggestion was only made as giving a basis for the amount of annual interest to be credited to investment for the use of which the trustees were supposed to be responsible; but the trouble is that the *trustees* were *not* responsible for such investment, and that in fact the construction which I have indicated has been placed upon the language used.

Is the inference true? The following are the facts: The *trustees* have expended in buildings about \$350,000; all other "*buildings*" (not the *funds* to erect them) were *donated* to the university, and the *trustees* had no discretion whatever in the disposition of the funds represented by the buildings. *They never had the funds.* The "real estate, representing \$94,000," was *given* the university, and the *trustees* had no discretion in the disposal of the funds representing it; *the ground, not the funds, was given* to the university.†

The amount of capital expended in buildings and real estate by the trustees of this university is very much less in proportion to its capital than the amounts expended for the same purpose in any other first-

*The italics in the above extracts from Mr. Warner's report are my own.

† The itemized statement of the funds expended by the trustees, and of the funds donated or held in trust by the university, may be found in the schedules annexed to this report.

class college in the country. The fair conclusion is, therefore, that the management of the university funds by the trustees is not open to just criticism.

Another subject upon which erroneous ideas prevail is that of the

SALARIES OF PROFESSORS.

The impression seems to obtain that the policy of the university has been to deal niggardly with its professors: that it has had a large income, that a very small portion of this has been paid to professors, and that the greater part has been expended in the erection of buildings and the acquisition of costly apparatus, collections, books, etc.

These impressions are erroneous. The payment of professors has, upon the whole, been as liberal as the circumstances of the university permitted since its inauguration. One mistake was made in founding the university: there were too many professorships established, considering the income of the university then, to pay them large salaries; there was, therefore, too minute a division of the fund, and the influence of this is felt even at the present time. It was, however, intended to be liberal from the beginning. In the report on organization (p. 26) the salaries of professors in different colleges in the country was stated at that time (1867) to be as follows: Columbia, \$4,000 to \$5,000; Brown, \$2,500; Yale, \$2,300; Union, \$1,800 to \$2,000; Hamilton, \$1,200; Hobart, \$1,400 to \$1,500; University of Michigan, \$1,700.

It was recommended that salaries of professors at Cornell of the first grade be then made \$2,250; second grade, \$2,000; third grade, \$1,750; that the salaries of assistant professors be made, first grade, \$1,750; second grade, \$1,500; third grade, \$1,200; fourth grade, \$1,000.

Surely, in view of this comparison, there was nothing to indicate a niggardly method in the treatment of professors. The salaries suggested were actually adopted at a reduction of \$250 in each. In 1881 they were raised to \$2,250 and \$2,500; in 1882 \$2,500 to \$2,750; at which nominally they remain, although the policy of special grants made to particular professors has increased the sum in many cases to a greater amount. Prior to 1881, as different professors were appointed, the salaries were raised, and specific grants made to others.*

* Mr. Williams, the acting treasurer, at my request, has given me the following statement:

Until the present year residents upon the university grounds have not been required to pay taxes. This year, however, a very light assessment has been made upon resi-

In respect to the amount expended upon professors' salaries, in proportion to the whole income from productive funds, the fact is, that since the university was established nearly the whole amount derived from productive funds has been expended upon the salaries of professors, and in some years the amount paid professors has actually exceeded the whole amount derived from productive funds. This is clearly shown in the schedule attached, showing the annual income and expenditure of the university. The figures relating to this subject may, however, be briefly given here: it will be seen they justify the assertion just made.

In 1871, the income from the productive funds of the university were \$67,000, expenditure in professors' salaries, \$43,724.61; 1872, income, \$80,000, expenditure, \$60,000; 1873, income, \$80,000, expenditure, \$65,000; 1874, income, \$80,000, expenditure \$60,000; 1875, income, \$80,000, expenditure, \$70,000; 1876, income, \$82,000, expenditure, \$73,500; 1877, income, \$79,000, expenditure, \$73,200; 1878, income, \$79,000, expenditure, \$74,000; 1879, income, \$73,000, expenditure, \$74,000; 1880, income, \$70,935, expenditure, \$71,700; 1881, income, \$114,000, expenditure, \$96,000.

dences of professors, on valuations ranging from \$400.00 to \$800.00. On this the year's taxes, say 4 per cent., would be from \$16.00 to \$32.00. The same property, well situated within the village bounds, would be rated at from \$1,500.00 to \$3,000.00, involving a yearly tax at 4 per cent., as above, of \$60.00 to \$120.00.

The average saving therefore on C. U. grounds is about ninety dollars in matter of taxes,	\$90.00
Building sites on the university grounds are <i>free of rent</i> , whereas equally good sites in the village would cost \$2,000.00. Difference, at 6 per cent. on purchase price, is	120.00
Water is supplied from C. U. Water-Works <i>free</i> . The average cost at rates charged by our village water company would be about thirty dollars,	30.00
Total cash saving yearly, say,	<u>\$240.00</u>

Professors Caldwell, Crane, Shackford, Morris and Prentiss live on the Main Avenue, and the walks are cleaned at C. U. expense. Others not on Main Avenue pay for such cleaning, where extra trips of snow-plow are required to reach their property.

As to the matter of farm produce, professors pay a fair average price for milk or vegetables from the university farm, as also for supplies of ice.

Whenever I have been able to make a favorable coal contract, we give the coal at cost; but for two or three years the combination of local dealers has been such that professors have been able to purchase their own coal at same price as C. U.

The following professors, having homes upon the campus, are benefited as above: Profs. Babcock, Comstock, Caldwell, Crane, Flagg, Hale, Hewitt, Law, Morris, Prentiss, Roberts, Shackford and Wait.

It is moreover only fair to add in reference to this question of professors' salaries, that if the trustees have not increased the salaries of professors very rapidly, they have, even when the university in its early years was burdened with a debt of nearly two hundred thousand dollars, never cut down the salaries of the professors, and, in this respect, the history of Cornell differs from that of most colleges.

To take a single illustration: the financial depression in 1877 and 1878 resulted in a much smaller number of students attendant upon this university; it resulted in depreciation of our securities, and, to some extent, it reduced the available income of the university; it increased our debt, but the salaries of our professors remained unreduced. In Yale College, at the same period (1877) the alumni say: "In the present financial distress prevailing throughout the country, it did not seem advisable to make any appeal to the public for aid. Under these circumstances the only practicable resource was that of cutting down salaries." The salaries of professors in the Sheffield Scientific School were cut down \$400 each. In 1878 they were cut down another one hundred dollars. The salaries of all permanent academical and university officers were also cut down. In 1879 the salaries of temporary instructors were reduced. In 1880, the reviving prosperity of the country is alluded to as preventing a further reduction, as appeals for aid might be made—it was thought—with some prospect of success.

Much has also been said of late, of certain valued professors leaving the university, and the impression would seem to obtain in some minds that the history of our own university is rather unique in the respect spoken of—indeed, I am free to say, it was my own. When, however, I had examined the reports of other colleges, and especially Harvard and Yale, it became my impression that we have less to complain of than either of those colleges in this respect.*

Some of the gentlemen we have lost would have remained with us if their salaries had been increased; others would have not done so. Precisely the same statement is true of both Harvard and Yale, especially of the latter.

The last report of the president (report of President White to the trustees, 1883) indicates what I believe is the policy every trustee in the board desires, and will strive to have adopted. It is worthy of reproduction here. "In my judgment, every member of the instruct-

* The publications I refer to are the reports of President Eliot of Harvard, and the publications of the executive committee of the alumni of Yale. Anyone who cares to examine these can verify the truth of the statements.

ing body should receive a salary on which he can support himself and his family *with ease and comfort. This should be the regular professional salary.* Anything above that should be a matter of special agreement; and *our board should allow no question of salary to stand between them and the securing or retaining of any man whom we really need."*

This question has passed out of the range of debatable questions. It is not one which needs advocates in the board; it is not one which the alumni need feel requires missionary work to be done to convert the trustees to a sensible appreciation of its importance. Its importance is felt, and is acted upon; has been acted upon during the past year, as many of our oldest and best professors will testify to if called upon.

The fair criticism upon the conduct of the university trustees in the past, in respect to the question of professors' salaries, is, that all that could possibly be done was done, as the schedules hereto annexed plainly shows. The only mistake made was in having too many professors for the funds available. A repetition of this mistake in the future would hardly seem imminent under the statutes recently enacted, which virtually confer upon the faculty the power of extending the departments of the university.

The next subject that may be mentioned upon which erroneous ideas prevail is

THE EXECUTIVE COMMITTEE.

It was said by Mr. Warner in his last report that "the one prominent fact which has of late attracted public attention is the almost complete localization of university management, and this has not inspired public confidence. Local management at Yale means a committee of the clergy and scholars at New Haven; at Cornell, of the business and professional men of Ithaca, an isolated inland village." Now I take this to mean that as it has of late come to the knowledge of the public that the university was managed by the citizens of "an isolated inland village," the public have lost confidence in it *because* of that fact. If this is so, then it reflects more severely on the good sense of the "public" than it does on the aforesaid citizens, because, if the "public" had taken pains to investigate, they would have discovered that the executive committee has *always* been composed of "the business and professional men of Ithaca," and that such membership is substantially the same as it was in the early years of the university, when, as Mr. Warner justly observes, "it was pre-eminently

the place in all the land where was best to be taught those arts and sciences which the age was beginning to appreciate, and which had been almost crowded out of the *curricula* of the older colleges," and when, too, "the university deserved a high reputation."

Mr. Warner, however, in these remarks represented a view somewhat extensively held. My own impression, from what I had heard, was that the executive committee was seriously interfering with the progress of the university, and that it would be most beneficial if it were abolished. I think, if then called upon to speak upon the subject, I should, in a confidential way, have been inclined to use even stronger language than Mr. Warner does in his report on the subject. Let us examine this subject, and endeavor to arrive at the truth concerning it. And, first, of its history and membership :

No mention of this body is made in the report on organization. We first hear of it in the Register of 1868-'69, in which it is stated that: "The more immediate superintendence of the university affairs is confided to the executive committee of the trustees, consisting of the chairman and treasurer, the president of the university, and of other trustees, the situation of whose residence permit them to be present, and who hold sessions in the village of Ithaca at intervals of a few days."

The name "Executive Committee" does not appear in the Registers of 1868-'69, 1869-'70, 1870-'71, 1871-'72, the title "Superintendency" being placed under the list of the full board, and under this later heading appear the names of Messrs. Cornell as chairman, Schuyler as treasurer, and Putnam as business manager.

In 1872-'73 the name "Executive Committee" first appears. It was composed of Messrs. Cornell, White, Finch, McGraw, Selkreg, and J. B. Williams, all, except the president, "business and professional men of Ithaca;" and yet, at this time, confessedly, the management of the university "inspired public confidence," its faculty — almost entirely selected by the members of this very executive committee — were, on the whole, worthy of hearty commendation, and the students capable and industrious. In 1873-'74, the executive committee continued the same, with the addition of Mr. Schuyler. In 1874-'75, the committee continued the same, with the addition of Mr. Halliday. In 1875-'76, upon Mr. Cornell's death, Mr. McGraw became chairman — in place of Judge Finch appears Mr. Sage. The alumni having elected Judge Boardman, his name also appears, and the committee was enlarged to nine, the following constituting its members: Messrs. McGraw, White, Sage, Schuyler, Selkreg, Williams, Halliday, Humph-

rey, Boardman and Lord. In 1877-'78, the same names appear, except that of Mr. McGraw. Judge Finch's name re-appears. In 1878-'79, 1879-'80, 1880-'81, 1881-'82, 1882-'83, the committee remained the same, except that Judge Finch's, with Mr. Selkreg's, name disappear, and Mr. Van Cleef's name appears. It appears, therefore, as was said above, that the executive committee has always been composed of "business and professional men of Ithaca."

Now, how unjust this alleged feeling is on the part of the alleged "public" is shown by the fact that, in 1873, the "business and professional men of Ithaca," members of the executive committee, did what truly *should* have "inspired public confidence," since, in that year, Henry W. Sage and John McGraw and Andrew D. White contributed nearly \$150,000 to pay a debt to that amount under which the university was laboring, and very frequently prior and subsequent to that time endorsed the university's notes to large amounts, to pay the salaries of its professors when the treasury of the university was almost bankrupt. I am convinced that had it not been for the exertions of "the professional and business men of Ithaca" on behalf of the university, "public confidence" in the university would long since have ceased, since the university itself would have ceased to exist, except, perhaps, as a third or fourth-rate college.

But it is said that "departments are abolished, new ones erected, professors discharged and chairs filled, all without the intervention of the board, which has of late convened at an annual meeting, held at Ithaca, in June, the time of which is mainly occupied in hearing an account of what the executive committee has done." (Mr. Warner's report, p. 2.) I have failed to find upon an examination of the minutes of the executive committee that a department was ever abolished by it. The rest of the statement I think is correct. But it seems to me it does not at all reflect upon the executive committee; it reflects upon the board of trustees, who should have themselves seen to it, if they desired, that what they conceived to be their powers were not usurped by any committee. As a matter of fact, these acts were performed by the executive committee because there was no one else to perform them, and because the board was perfectly willing they should.

The real question—the important question—is, not whether the men who were members of the executive committee were residents of Ithaca, or of Timbuctoo, but whether they did their work *well*. I believe they did. I think they saved the university, and I am willing to admit that, in respect to the work they performed, the objects they

the statement I now make, that the alumni trustees have no complaint whatever to make; that, *as a body*, they do not wield in the board as much power as it is proper and right they should, and that no distinction between alumni and self-perpetuating trustees is even thought of or suggested for a moment in the board of trustees.

It is sincerely hoped that the uncalled for discussion on this subject will not be longer continued. When the real situation of affairs is fairly understood by the alumni I feel sure it will not be mentioned.*

OF THE MANAGEMENT AND DISPOSITION OF THE UNIVERSITY FUNDS.

Upon this subject, also, very erroneous impressions prevail among the alumni. Circulars have been sent out, with conspicuous headings "Men before Buildings," "Buildings in the Background," "A University Consists in its Professors," etc., and the impression created by many of the assertions which have been made is to the effect that a very large portion of the capital of the university has been expended in the erection of buildings, while the professors have been kept on meagre salaries, which might easily have been increased, had not the rage for building seized upon and kept captive the infatuated trustees. These statements, it was conceived, received corroboration by the following statement, made by Mr. Warner in his report last year: "The items of real estate used by the university, including library and collections, aggregating \$1,350,000, though not actually yielding money income, should be considered investments at, at least, usual interest, since the investment of actual funds to that amount must be presumed

* The following remarks by the Chicago alumni on the repeal or modification of the law are exactly to the point, just and fair: "This law amended the charter so as to make eight trustees a quorum for the election of another trustee. Theretofore, eight had been a quorum for the transaction of all business save the election of trustees, which had required ten. The change was made because of the difficulty in procuring the attendance of the larger number, it having been necessary several times to bring a sick man (Hon. J. B. Williams) from his bed to constitute a quorum. But it is discovered that the charter as amended deprived the alumni representatives of a sort of absolute veto which they might before have possessed, since if these representatives wilfully absented themselves, and the *ex officio* trustees were not present, the ten charter trustees would be powerless to elect successors. This veto power was never exercised, *and was never intended to be given*. To seek to take advantage of an accidental slip in the letter of the charter so as to organize regular 'obstruction by a minority' is not to be commended. If alumni trustees are to have the veto—which is not admitted—let it be squarely accomplished by an independent law explicitly directed to that object."

to have been made as the best paying one for university purposes *that the trustees could find.*" (Mr. Warner's report, 1883, p. 1.) In other words, the *trustees* have invested \$1,350,000 *of university funds* in real estate, library and collections. Prior to the statement just made it was stated that of the sum of \$1,350,000 the sum of \$350,000 was invested "in library, apparatus, collections, etc.," and the sum of \$1,000,000 in real estate, buildings, etc., used for university purposes.

In other words, the *trustees* have expended \$1,000,000 *of university funds* in buildings "as an investment," and "as the best paying one for university purposes that the trustees could find." Considering this sum, \$1,350,000 as an investment of *university funds*, "the sum of \$80,000 must be considered as used in the amount (of interest thus lost) to be charged on account of permanent educational investment." (Mr. Warner's report, p. 1.) In other words, by this investment of \$1,350,000 *of university funds*, the *trustees* have deprived the university of \$80,000 *each year*, which, had it *not* been expended on buildings, etc., might have been expended *on professors' salaries each year.**

Such is a legitimate conclusion from the language used, and such I find to be the inference drawn by those with whom I have conversed concerning the report. A careful consideration of the report, however, shows that the suggestion was only made as giving a basis for the amount of annual interest to be credited to investment for the use of which the trustees were supposed to be responsible; but the trouble is that the *trustees* were *not* responsible for such investment, and that in fact the construction which I have indicated has been placed upon the language used.

Is the inference true? The following are the facts: The *trustees* have expended in buildings about \$350,000; all other "*buildings*" (not the *funds* to erect them) were *donated* to the university, and the *trustees* had no discretion whatever in the disposition of the funds represented by the buildings. *They never had the funds.* The "real estate, representing \$94,000," was *given* the university, and the *trustees* had no discretion in the disposal of the funds representing it; *the ground, not the funds*, was given to the university.†

The amount of capital expended in buildings and real estate by the trustees of this university is very much less in proportion to its capital than the amounts expended for the same purpose in any other first-

*The italics in the above extracts from Mr. Warner's report are my own.

† The itemized statement of the funds expended by the trustees, and of the funds donated or held in trust by the university, may be found in the schedules annexed to this report.

class college in the country. The fair conclusion is, therefore, that the management of the university funds by the trustees is not open to just criticism.

Another subject upon which erroneous ideas prevail is that of the

SALARIES OF PROFESSORS.

The impression seems to obtain that the policy of the university has been to deal niggardly with its professors: that it has had a large income, that a very small portion of this has been paid to professors, and that the greater part has been expended in the erection of buildings and the acquisition of costly apparatus, collections, books, etc.

These impressions are erroneous. The payment of professors has, upon the whole, been as liberal as the circumstances of the university permitted since its inauguration. One mistake was made in founding the university: there were too many professorships established, considering the income of the university then, to pay them large salaries; there was, therefore, too minute a division of the fund, and the influence of this is felt even at the present time. It was, however, intended to be liberal from the beginning. In the report on organization (p. 26) the salaries of professors in different colleges in the country was stated at that time (1867) to be as follows: Columbia, \$4,000 to \$5,000; Brown, \$2,500; Yale, \$2,300; Union, \$1,800 to \$2,000; Hamilton, \$1,200; Hobart, \$1,400 to \$1,500; University of Michigan, \$1,700.

It was recommended that salaries of professors at Cornell of the first grade be then made \$2,250; second grade, \$2,000; third grade, \$1,750; that the salaries of assistant professors be made, first grade, \$1,750; second grade, \$1,500; third grade, \$1,200; fourth grade, \$1,000.

Surely, in view of this comparison, there was nothing to indicate a niggardly method in the treatment of professors. The salaries suggested were actually adopted at a reduction of \$250 in each. In 1881 they were raised to \$2,250 and \$2,500; in 1882 \$2,500 to \$2,750; at which nominally they remain, although the policy of special grants made to particular professors has increased the sum in many cases to a greater amount. Prior to 1881, as different professors were appointed, the salaries were raised, and specific grants made to others.*

* Mr. Williams, the acting treasurer, at my request, has given me the following statement:

Until the present year residents upon the university grounds have not been required to pay taxes. This year, however, a very light assessment has been made upon resi-

In respect to the amount expended upon professors' salaries, in proportion to the whole income from productive funds, the fact is, that since the university was established nearly the whole amount derived from productive funds has been expended upon the salaries of professors, and in some years the amount paid professors has actually exceeded the whole amount derived from productive funds. This is clearly shown in the schedule attached, showing the annual income and expenditure of the university. The figures relating to this subject may, however, be briefly given here: it will be seen they justify the assertion just made.

In 1871, the income from the productive funds of the university were \$67,000, expenditure in professors' salaries, \$43,724.61; 1872, income, \$80,000, expenditure, \$60,000; 1873, income, \$80,000, expenditure, \$65,000; 1874, income, \$80,000, expenditure \$60,000; 1875, income, \$80,000, expenditure, \$70,000; 1876, income, \$82,000, expenditure, \$73,500; 1877, income, \$79,000, expenditure, \$73,200; 1878, income, \$79,000, expenditure, \$74,000; 1879, income, \$73,000, expenditure, \$74,000; 1880, income, \$70,935, expenditure, \$71,700; 1881, income, \$114,000, expenditure, \$96,000.

dences of professors, on valuations ranging from \$400.00 to \$800.00. On this the year's taxes, say 4 per cent., would be from \$16.00 to \$32.00. The same property, well situated within the village bounds, would be rated at from \$1,500.00 to \$3,000.00, involving a yearly tax at 4 per cent., as above, of \$60.00 to \$120.00.

The average saving therefore on C. U. grounds is about ninety dollars in matter of taxes,	\$90.00
Building sites on the university grounds are <i>free of rent</i> , whereas equally good sites in the village would cost \$2,000.00. Difference, at 6 per cent. on purchase price, is	120.00
Water is supplied from C. U. Water-Works <i>free</i> . The average cost at rates charged by our village water company would be about thirty dollars,	30.00
Total cash saving yearly, say,	<u>\$240.00</u>

Professors Caldwell, Crane, Shackford, Morris and Prentiss live on the Main Avenue, and the walks are cleaned at C. U. expense. Others not on Main Avenue pay for such cleaning, where extra trips of snow-plow are required to reach their property.

As to the matter of farm produce, professors pay a fair average price for milk or vegetables from the university farm, as also for supplies of ice.

Whenever I have been able to make a favorable coal contract, we give the coal at cost; but for two or three years the combination of local dealers has been such that professors have been able to purchase their own coal at same price as C. U.

The following professors, having homes upon the campus, are benefited as above: Profs. Babcock, Comstock, Caldwell, Crane, Flagg, Hale, Hewitt, Law, Morris, Prentiss, Roberts, Shackford and Wait.

reside upon the hill, rather than in the town, and the consequent withdrawal from many temptations to idleness, if not worse. One reason, doubtless, for this, is that quite a number of recitations are now held in the afternoon, and it is very difficult for the students to do otherwise than remain upon the hill. I think the tendency is a good one, and should be encouraged. The alumni trustees resident in Ithaca would earn the lasting gratitude of the students if they could induce some one to establish a decent restaurant upon the hill at the university. I may be sanguine in thinking that reputable persons could be found who would undertake it on a strictly business basis, but I think they could. Here, certainly, is one field in which the operation of "Ithaca influence" would not be harshly criticized. The arrangement at the best, however, would be but temporary, for I believe that the close of the next decade will witness an almost total migration of the students to the hill, and I think it will be better for the students and better for the university.*

* Such is the view taken by the undergraduates, also, as witness the following from the *Cornell Daily Sun* :

REMOVING TO THE HILL.—Most juniors and seniors have doubtless noticed that there has been for two or three years a gradual migration of students from the town toward the university. This is brought to notice especially at this time, when one of the fraternities of the university has already broken ground for a house on the campus, and it is understood that another fraternity is soon to do so, while a third is on the point of moving from down-town to a new house on Eddy Street. This movement of the students cannot fail to be of great interest when we consider the consequences which will naturally result from it, and which we are beginning to see already. It has a tendency to concentrate the members of the university in a smaller area, to identify the interests of each class of students with every other class, and to emphasize their connection with the university. Those students who have rooms down-town must of necessity live apart from those on the hill, and their connection with the people of the town is often more intimate than with other members of the university. This has brought about a diversity of interests, and has divided the student body into two more or less clearly defined classes. But as the students congregate upon the hill, this distinction will gradually disappear. Thus they will become more like one body, and their connection with the university will be more immediate. Another result will probably be observed, namely, that more studying will be done by the students as a whole than formerly. There are many allurements down-town which tend to reduce the amount of study of students living there to a minimum. To those who live on the hill, these attractions are not nearly so strong, and there can be little doubt that in Ithaca the hill is far more conducive to work than the valley. In view of these considerations, it would seem that the observed movement of students from the town toward the university ought to give pleasure to all who are interested in the welfare of the students.

Another subject upon which erroneous ideas prevail is

THE RELIGIOUS STATUS OF THE UNIVERSITY.

Mr. Warner, in his last report, says: "Of late the university and some of its well-meaning friends have shown a damaging solicitude in regard to its stand taken, particularly in respect to religion. It has been attempted to show that, after all, piety and religion are actively encouraged and supported at Cornell; when the facts—to our credit—do not bear out such statements. Cornell has never been guilty of what would have been a sectarian folly—of teaching infidelity, nor has she inculcated piety. She has had, and has, nothing to do with either."

I think these statements require modification. Whatever its "well-meaning friends" have been doing, I do not think "the university" has shown "of late a damaging solicitude in regard to its stand taken in respect to religion." An examination of its official utterances will disclose the fact that of late it has shown no solicitude whatever on the subject compared with that indicated in the past, and if it be true that Cornell has nothing to do with piety or religion, then it will appear that students have been induced to come here under false pretences, since the university has always been publicly declared to be not only a religious, but a *Christian*, institution.

No student has ever been induced to attend the university from a statement that it was NOT a Christian institution. No such announcement has ever been made; on the contrary, it has always been declared to be a Christian institution.

Now for the facts which confirm these assertions:

The announcement made in the first Register (1868-'69, p. 29) was as follows:

"The university seeks as its highest aim to promote *Christian* civilization. But, as it was established by a government which recognizes no distinction in religious belief, and by a citizen who holds the same view, it would be false to its trust were it to seek to promote any creed, or to exclude any. By the terms of its charter no professor or student can be accepted or rejected on account of any religious or political opinions which he may or may not hold. Simple religious exercises are held daily at the university chapel, which all students, except those specially excused for due cause shown to the faculty, are *expected to attend*. *Students are also expected to attend some religious service on Sunday.*"

Certainly there has been no *advance* on the standard established at the beginning of the university in this regard.

At the inauguration of the university Mr. Cornell said (*Register* 1869-'70, p. 17): "I desire that this shall prove to be the beginning of an institution which shall furnish *better* means for the culture of all men of every calling, of every aim, which shall make men more truthful, more honest, more virtuous, more noble, more manly, which shall give them higher purposes training them to be more useful in their relations to the State, to better comprehend their higher and holier relations to their families and their God. It shall be our aim and our constant effort to make true *Christian* men, without dwarfing or paring them down to fit the narrow gauge of any sect."

On the same occasion President White said:

"The faculty now assembled is in the best sense a *Christian* faculty, yet it is of no dogma; almost every religious body is represented." And, again: "Nor shall we discard the idea of worship. This has never been dreamed of in our plans. The first plan of buildings and the last embraced a university chapel. From yonder chapel shall daily ascend prayer and praise. Day after day it shall recognize in man not only mental and moral but *religious* want. We will labor to make this a *Christian* institution—a sectarian institution may it never be. . . . May this be a monument which shall make earnest men more earnest. . . . May there ever rest upon it the approval of good men. Above all, may it have *the blessing of God.*"

On the same occasion Vice-President Russell said:

"We trust, *with God's help*, we shall be faithful to the means placed at our disposal."

The significance of these remarks was fully understood; Chancellor Pruyn, on the same occasion, remarking in his speech, "I was glad to hear to-day, in the remarks of the president of the faculty, that this institution was to be founded and carried on in the broad and comprehensive principles of *Christianity*; that the offering of prayer and praise to the Most High was to ascend day by day from its walls."

And last, but not least, the same idea is expressed by Judge Finch in his memorable and exquisite address on that occasion, upon the chimes, in a passage of such beauty, that its reproduction here cannot be but welcome. He had spoken of the large bell. Speaking of the smaller ones, he said: "The rest silent, while the imperious worker clangs his call to work, will add their voice in the stillness and calm of the Sabbath mornings, in the serene peace of the Sabbath evenings, and waft over hill and valley and lake, stilling its waves to listen to

the grand melodies of the *Christian* church, and silence forever the false tale that, because *all modes of Christian worship are respected here*, all *Christian* creeds permitted, with the same broad toleration which is the crown and glory of our free republic, therefore there is no moral force, no *religious* culture here."

In 1872, there was issued from the university press, a pamphlet entitled "Cornell University: What it is, and what it is not," and the statements in the early Registers and in the speeches at the inauguration of the university are intensified therein (p. 27) as follows: "The Cornell University is governed by a body of *Christian* trustees, conducted by *Christian* professors, and is a *Christian institution*, as the public-school system of this State is *Christian*. Its inauguration exercises were commenced with simple *Christian* worship, and not a public exercise of any sort has taken place since that has not been begun with that great comprehensive petition *from the Founder of Christianity itself—the Lord's Prayer*. . . . *The University is therefore a Christian institution*, but it is not sectarian. Its endowment by the General Government, and its State charter, forbid it expressly from making distinction as to belief. It belongs to the entire people of the State, not to any party division, sect, synod, conference, convention, or convocation." In the Register of 1873-'74, p. 28, the announcement was made that, "In the chapel, when completed, daily morning prayers would be held, and religious exercises at least once on every Sunday, in connection with which discourses will be delivered by clergymen of the various *Christian* denominations, to be selected from time to time in such a way as to give the best representation of the religious thought of the age, and to exemplify the influence of *Christianity* upon the world."

In the Register of 1874-'75 this announcement was continued, with the addition that there was also daily chapel exercises, "to which students are *invited*, although none are compelled to attend."

In the Register of 1876-'77 this announcement of daily services disappeared, and has not yet reappeared. So far as now appears from the Register the only religious services held at the university are the Sunday sermons at the chapel.

The above extracts are far more convincing than any argument would be that during the early years of the university far more stress was laid upon Christian influence and devotional exercises than at present. In 1860, students were "expected" to attend chapel daily and to be present at church on Sunday. In 1876 they were "invited" to chapel. In 1883, no mention is made of their being "expected" or "invited."

Certainly, judging by its recent official utterances, contrasted with those of the past, it *cannot* be said truthfully that “*of late* the university has shown a damaging solicitude in respect to religion.”

Of late it has shown no solicitude whatever on the subject compared with that evinced in the past.

Judging by the language of its official utterances, the language of its founder, its president, its trustees, the university is a *Christian* institution. Should it not encourage “piety and religion?”

But if it be indeed true that the university is a Christian institution, it is, it seems to me, high time that it should be defined in what sense and to what extent it is so.

If it is meant that it is a Christian institution in the same sense only that the common-school system of this State is Christian, then it is not a Christian institution at all, since, according to three successive superintendents of schools, Messrs. John C. Spencer, John A. Dix, and the present incumbent, Mr. Ruggles, no religious exercises should be allowed in the common schools if there is any objection made thereto.

In respect to the use which may be made of its endowment funds for religious purposes, I think that Cornell cannot be said to be a Christian institution, for as its endowment came from the National and State Governments, which recognize as pre-eminent no religion directly, and whose citizens comprise those adhering to different religions, it follows *that no portion of the funds so given* should ever be expended in maintaining a religious establishment, or religious professorships, or chairs of divinity. The expenditure of such funds in such a purpose would, it seems to me, be a breach of trust. Of such a breach of trust the university has never been guilty. No portion of the funds derived from the State has ever been expended upon religion, and to this extent Cornell is *not* a Christian institution—not even a religious institution.

If, therefore, nothing were said in the charter on the subject, the religious status of the institution would be the same as that of the common schools, and the declarations that this is a Christian institution which have appeared in almost every official document emanating from the university would be entirely without warrant.

But its charter provides that “at no time shall a majority of its board of trustees be of any one religious sect or of no religious sect.”

The charter therefore provides that a *majority* of the board of trustees *shall be members of religious sects*.

In arriving at the meaning of statutes it is a well established prin-

ciple that "the general state of opinion, public, judicial and legislative, at the time of enactment may be considered."*

Now, it cannot be doubted that at the time of the enactment of the university charter, according to the general state of opinion, public, judicial and legislative, the prevailing religion of this State was Christian, which, indeed, is the only prevailing religion known in this country which has *sects*.

It follows, therefore, that the charter provides that a majority of the members of the board of trustees should be members of *Christian* sects; that is, should be Christians.

Now, such being the case, what is the duty of those trustees? Their duty I conceive to be that of a government itself, conceding it to be Christian. What that is has been admirably expressed by Judge Story in his great work on the Constitution, as follows: "The promulgation of the great doctrines of religion; the being and attributes and providence of one Almighty God; the responsibility to Him for all our actions founded upon moral freedom and accountability; the cultivation of all personal, social and benevolent virtues *can never be a matter of indifference in any well ordered community*. It is indeed difficult to conceive how any civilized society can exist without them. *At all events it is impossible for those who believe in the truth of Christianity as a revealed religion to doubt that it is the especial duty of governments to foster and encourage it among all citizens or subjects*. This is a point wholly distinct from that of the right of private judgment in matters of religion and of freedom of public worship, according to the dictates of one's conscience."†

It being, then, the especial duty of the trustees to foster and encourage religion, how can they lawfully do so? They cannot use any portion of the endowment therefor, as we have seen—such is not the direct purpose of the trust. But they may receive from private individuals funds and property which may be used by them, when the use to which the funds are to be put is collateral to the purpose of the institution.‡

That the purpose is collateral, nay more, an especial duty, we have already seen, and we must therefore conclude that the action of the

* Sedgwick on Construction of Statutory Law, 2d Ed., p. 204.

† Story on the Constitution, § 1871.

‡ "There is no positive objection in point of law to a corporation taking property upon a trust not strictly within the scope of the direct purpose of the institution, but collateral to it." The Girard College case, Vidal vs. Girard, 2 How. U.S., 127.

board of trustees in receiving from Mr. Henry Sage the gift of the chapel, and from Mr. Dean Sage the gift of the Sermon Fund, was directly within the line of its duty, and undoubtedly within its power; and should any generous benefactor see fit to establish a chair of Christian Philosophy, or Christian Ethics, there is not only nothing in the charter to prevent it, but, it seems to me, it would be the duty of the board of trustees, under the charter, to accept the funds.

But, it may be asked, does not this observance of religious worship indirectly destroy the character of the government endowment in its non-religious aspect, by thus promoting and fostering the Christian religion? Not at all. Attendance upon such services is not made compulsory, and, besides, no portion of the fund is used in promoting such religious observances.

"No principle of constitutional law is violated," says Judge Cooley in his work on Constitutional Limitations, "when legislative assemblies are opened with prayer or the reading of the Scriptures. Undoubtedly the spirit of the constitution will require in all these that care be taken to avoid all discrimination in favor of any one denomination or sect; but the power to do these things will not be unconstitutional simply because of being susceptible of abuse. The public recognition of religious worship, however, is not based entirely, perhaps, or even mainly, upon a sense of what is due to the Supreme Being Himself, as the author of all good and of all law; but the same reasons of State policy which incline the State government to aid institutions of charity and seminaries of instruction will also incline it to foster religious worship and religious institutions as conservators of the public morals, and valuable, if not indisputable, assistants to the public order."*

But it may be inquired if the Christian religion is to be so fostered and encouraged, what is to become of that intellectual freedom that prompts to independent scientific research; to the following after truth, wherever it may lead? Is not the Christian religion opposed to such? We do not so understand it. In the words of President Porter, who expresses the idea more clearly than I could in any words of my own: "The Christian spirit is, in its nature, truth-loving. If there is any one feature prominent in the character of its great Founder, in which He was before His own time, and has given character to all the time that has followed, it is His recognition *of the independence of the truth as such, and of its authority, by virtue of its hold upon the reason.* If there is any one spirit which He has inculcated by word and exam-

* Cooley's Constitutional Limitations, 2d Ed., p. 471.

ple, it is the spirit of brave allegiance to truth. . . . It enjoins the love of all sorts of truth—truth of art and literature, as well as of that beauty, which is but another name for æsthetic truth. The precept, ‘Whatsoever things are true, whatsoever things are lovely, whatsoever things are of good report, think on these things,’ provides for the most æsthetic taste conceivable, for the most progressive civilization, for all true refinement in art, in literature, in manners and in civilization of every kind. It not only provides but enjoins them all as duties.” And this is said by one who at the same time candidly admits that “the university and the college are not *proximately* designed for religious culture and spiritual edification, but for study and intellectual discipline. To turn them into houses of religion, or to use them chiefly or prominently for spiritual instead of intellectual exercises, is greatly to pervert them . . . and to foster all manner of spiritual monstrosities, as hypocrisy, cant, spiritual pride, and the like.”

The conclusions reached, therefore, are that in some senses the university is not, and in others it is, a Christian institution. In respect to the use of its endowment for religious purposes, in respect to its having the right or power to impose upon professors or students any religious test or observance, or compel their attendance thereon, it is *not* a Christian institution. In respect to the majority of its governing board, in respect to its power and right to accept and receive trust funds to maintain religious observances and devotional exercises and to establish chairs of divinity, it is a Christian institution, and as such, and to the extent and by the means indicated, may encourage and support the Christian religion.*

ALUMNI CRITICISM OF THE UNIVERSITY.

In closing this branch of the report it may not be out of place to say a few words concerning the scope of alumni criticism upon the university.

I am not one of those who favor the blindly laudatory policy on the part of the alumni, as distinguished from the policy of criticism. I think the most earnest, searching criticism is not only to be permitted,

* See, also as reaching the same conclusions as those indicated above, the admirable report made at the end of the first year at the University of Michigan, by the regents of that institution, as quoted in Mr. Ten Brook's work on “American State Universities.” Pp. 158, 159. See also President Porter's work on “American Colleges and the American Public.” Pp. 229–236.

it should also be encouraged. The only question for discussion is the *method* of such criticism. If the alumni believe that certain departments are weak, and that persons connected with the University are incompetent, it is right and proper they should express their views on these subjects, and present their reasons for their beliefs, but the question arises, *how* shall this be done? By discussions in the public prints, by proclaiming them at festive gatherings, where such announcements appropriately fulfill the same functions as that accomplished by the skeleton at the Egyptian feasts,—by drawing up resolutions announcing these defects, and scattering them far and wide? I take it not. These matters should be corrected by the board of trustees. The alumni have their representatives in that board, who constitute one-third of that board, and it is *to them* that all such statements should be made, and as quietly and privately as possible; and this can be done most effectively by members of the alumni, singly or collectively, writing *to such trustees* their views on the subject. If the alumni trustees are real representatives, they will present the wishes of their constituents to the board at the proper time and in the manner they deem most effective; if they are not real representatives of the alumni the alumni should ask them to resign and procure others who are. In this way whatever reforms need accomplishment may be accomplished quietly and far more quickly than in any other way. There is no necessity for public discussion on these subjects, and it is to be hoped that hereafter there will be acceptance of this method of criticism; it will accomplish far more than some others, I feel assured.*

II. CONDITION AND NEEDS OF THE UNIVERSITY.

What its condition is *not* has already been considered by an examination of various topics, concerning which erroneous ideas are held. It remains now to present such information concerning the university as may properly be given in a report of this character.

* The proper position is clearly stated in the recent circular of the Chicago alumni on behalf of Judge Foraker: "A cordial recognition of the invaluable services of the president in all approved plans for university advancement; an honest and discriminating acknowledgment, in the main, of the great work done by the trustees and the faculty; coöperation with, no antagonism to, the full board of trustees; reforms to be accomplished by arguments in good temper—no futile attempts by irritating and hurtful newspaper criticism; less outside agitation—more inner quiet work free from hostile public comment; a conciliatory policy—firmness of conviction not being incompatible with dignity in methods and manners."

GRADUATE STUDENTS.

They constitute the university proper, and every effort should be made to increase their number.

The record is, on the whole, encouraging, though one cannot but regret that, when the number in attendance upon Johns Hopkins is considered, Cornell has done no more in this direction.

But a fair beginning in the way of encouragement has been made this year in the establishment of several fellowships of about \$400 each, available for one year or more. The details of the plan have not yet been definitely decided upon, but it is hoped they will be by commencement. The essential features of the plan are presented in the circular sent out by the president, subject to such modification, of course, as the trustees may desire to make. It seems to me that this university, with its magnificent endowment, has a great duty to perform in this regard—one which educators of the State expect it to perform, and which it cannot neglect.

An extract from the last report of the Board of Regents of this State is very significant in this connection :

“The rapid development of the country, the increase of wealth and intelligence, the growth of a class who have both the leisure and the wish to pursue learning into its higher walks, are calling for better facilities for culture and study than the country has heretofore afforded. The age at which the best young men now enter upon the practice of a profession is five or six years greater than it was twenty years ago. . . . In this development *great endowments* have played a conspicuous part, *and have given to the institutions so favored* advantages that will, in all probability, keep them permanently in the lead. The great colleges which can afford to do it must provide for the student opportunities *to work on profitably for several years*. If they cannot, or will not, we must continue to see our young men flock by the thousand to Germany and France and England. In these changes which are going on in the condition of the colleges we witness the working out of a great educational problem. We are learning rapidly that we need all our colleges. . . . but we have come to the time when some of these great institutions . . . should devote themselves to advanced work. . . . We need our colleges scattered over the State. . . . We shall have two or three institutions with vast endowments enabling them to employ the best talent, and to procure and provide the best equipment for their advanced work.”*

* Annual Report of the State Board of Regents, 1883, pp. v., vi.

A beginning has been made in the fellowships recently established, but should not the number be speedily increased?

The suggestions I have to offer in this connection will be found subsequently under the head of "Tuition."

OPTIONAL AND SPECIAL STUDENTS.

The last Register announces that optional students are admitted and allowed to attend recitations and lectures, irrespective of the class distinctions which prevail in almost all the other colleges in the country; the Register also states that special students of twenty-one years may be admitted without examination for a limited period. I think this admirable feature of the university has recently been adopted elsewhere; it is hoped it may not be discontinued here.

It is perhaps the one distinctive feature of the institution, which keeps it in line with the wish of Mr. Cornell: that facilities should be here afforded any worthy person for instruction in any study.

Some of this class of students, special and optional, have been among the very best the institution has had, and have perhaps won as much distinction and recognition in the world as any of the members of the alumni.

HIGHER EDUCATION OF WOMEN.

When it was proposed, in 1872, to admit women to the privileges of the university, there was much feeling against it on the part of some of the trustees, of many of the professors, and of almost all of the undergraduates. The idea was regarded as largely experimental and as opposed to the convictions then understood to be held on the subject by those having the direction of the ablest educational institutions in this and other countries. But the experiment was tried, and the question whether women, who so desire, shall not have the opportunity afforded them of obtaining a degree in the best educational institutions in this country and England, provided they are able to show the required qualifications, has been settled by the most conservative of all institutions in England: Oxford and Cambridge, and in this country by Harvard and numerous others of the best institutions, admitting women to examinations, and conferring upon them the degrees to which they have shown themselves entitled.*

* The following from the *Harvard Crimson* indicates how greatly undergraduate opinion has changed since 1874, when the position taken in most of the college papers in the country was diametrically opposed to the one now presented:

"In a long article in a prominent daily the question of admitting women to degrees at Oxford and Cambridge is fully discussed. There is not a doubt in the author's

So far, at least, the conclusion reached by those having in charge the educational interests of this university has been ratified and confirmed by the opinion of the ablest educators in this country and England.

The question of the *method* by which the result desired shall be obtained still remains an open one, resulting in various plans, some favoring, others opposing, the co-education of the sexes. On this point, however, Cornell is committed. Women are not only free to enter the examinations, but may listen to its lecturers, recite to its professors, and experiment in its laboratories.*

The scholarship attained by the women in attendance at Cornell has been high, as indicated by the courses pursued, and the degrees taken by them. The number of women students has diminished of late years. This is not surprising. The number of colleges devoted exclusively to the higher education of women has, of late, greatly increased, and many colleges, devoted heretofore exclusively to the education of men, now open their doors to women. The number of women students who board in Sage College has always been small.

mind but that the much-sought-after sanction by the college faculties will be given. Yet, when we look at the debatable point logically, a point at which the divines of England are launching their stores of old saws, proverbs and 'antediluvian nonsense,' as Dr. Collier sensibly calls it, all opposition ought and eventually will cease. . . . This opposition to the education of women is worthy of more early times, and certainly reflects little credit on a century that prides itself on liberality of thought and education. Much as has been said about the evil consequences which will arise from the higher education of women, all has been refuted by the few examples who, having braved the storm of public sentiment (a sentiment, by the bye, already changed and now favorable to what it formerly censured) have gone through a college course uninjured morally, and greatly benefited intellectually. The unexpected success in America of the various college annexes ought to aid the thinkers in England in solving the difficult problem and show them that here, at least, popular prejudice has been changed by the successful result of an experiment. That woman ought not to receive the same salary as men is evident, because they are personally weaker and cannot endure what men can. Yet, to say that a woman ought not to get a degree, simply because she is a woman, even when she passes the same examinations and does the same amount of work as a man, is unreasoning obstinacy. Let us hope this simple question will be settled without more ado, and let the English faculties grant for a certain amount of work a proportionate reward to women, just as they now grant them a certificate. If the question must still be quibbled over and discussed, the men who are now blindly opposing a liberal idea, will some day awake and see, to their surprise, like the fabled mountain, what a small mouse they had labored over."—*Crimson*.

* The subjoined schedule relating to women at Cornell, compiled by Mr. Geo. L. Burr, will be found to contain much valuable information on the subject.

This is due to the fact that the women can board outside at less expense. The means of many have been very limited, and to board at Sage College would entail not only an increased price for board, but, in the opinion of the women, other increased expenditures.

Sage College was not primarily instituted for such women. If it can ever be made to serve a really useful purpose in the furtherance of women's education, it will be as a home for women whose parents' means enable them to pay the price established for board, and whose parents desire that their daughters, while at college, shall have thrown around them the safeguards, the oversight, and the protection of a home. Some women do not need these ; there are many more that do ; and for such Sage College should exist. I have the best means of knowing that it is very dear to the heart of its munificent founder that it should fulfill the function I have indicated. That it may successfully do so, it is of paramount importance that there should be in the college and at its head some noble woman of commanding intellectual powers, of deep moral convictions, and of wide sympathies. It is a severe commentary on the status of American women that none such has been as yet discovered to be available in this country by the president and trustees, although over two years have passed since the search began. It is to be hoped that the next Register will announce that Sage College is no longer without a matron, and that the assurance may be given to the world that parents may send their daughters to Cornell, confident that while here their mental, moral and religious development may go hand in hand, and that attendance at college will no longer mean the absence of the proper restraints and of the beneficent guardianship of the home-circle.*

The establishment of scholarships exclusively for the benefit of women, just made by the board of trustees, through the munificence of Mr. Sage, places Cornell at the head of all American colleges in respect to the facilities offered women to obtain a collegiate education. In no woman's college in the country, that I have heard of, is any similar provision made, and I have no doubt that the proper authorities will cause due notice to be given to all those interested in women's education of the unequalled opportunities now presented therefor at Cornell University.

Since writing the foregoing, the suggestion has been made to me by one of the alumnæ that upon another ground than those indicated above will the presence of a matron at Sage prove highly desirable.

* The matron has been secured.

Many of the women in attendance come from the homes of the comparatively poor, and have had limited opportunities to inform themselves of the manners and usages of thoroughly cultured and refined people. Many desire to qualify themselves for positions as teachers, or even for professional life.

To all such the companionship—the example of a really refined and cultured woman such as I assume the matron of Sage College would be—could not fail to be of great benefit. Perhaps the success of such women in after life would depend quite as much upon their refined manner and ladylike demeanor as upon their intellectual power. I think this is likely to be the case with women even more than with men. If a woman's means are too limited to enable her to enjoy these advantages it is simply a misfortune; if she can avail herself of such advantages, it is shortsightedness not to do so. Of course, I do not mean to imply that even in the case of persons who have not enjoyed social advantages there may not be much delicate perception and intuitive tact, which largely supply the place of such advantages; however, it is equally true that keen, intellectual perception is sometimes associated with great roughness or rawness of manner and slovenliness in personal appearance.

In men these are sometimes forgiven, in women rarely—especially by other women.

INSTRUCTORS IN THE UNIVERSITY.

It is a pleasure to state that the instructors of the university have—until within the last two years—been selected from its deserving students, many of whom have risen to be assistant and associate professors, and one, of the class of '74, John Henry Comstock, to the rank of full professor, in the university. The names of such students may here find a worthy place—constituting, indeed, a roll of honor. The names are given in the order in which their names occur in the Registers. J. B. Comstock, '70, assistant instructor, '68-'69; assistant professor, '75-'77; Albert R. Greene, '70, assistant instructor, '68-'69; Geo. F. Behringer, '69, assistant professor, '69-'70; O. H. P. Cornell, '74, instructor, '69-'70; Edward Willis Hyde, '72, instructor, '71-'73; David Star Jordan, '72, instructor, '71-'72; William Russell Dudley, '74, instructor, '72-'76; assistant professor, '76, and so continues; John Henry Comstock, '74, instructor, '73-'76; assistant professor, '76-'82; professor, '82, and so continues; Orville A. Derby, '73, instructor, '73-'75; C. E. Patrick, '73-'74, instructor, '74; Ansley H. Phinney, '73, instructor, '73-'74;

George H. Winston, '74, instructor, '73-'74; E. Bartley, '73, instructor, '74-'75; William R. Lasenby, '74, instructor, '74-'78; assistant professor, '79-'81; George W. Harris, '73, assistant librarian, '74-'82; acting librarian, '83, and so continues; Edward L. B. Gardiner, '75, instructor, '75-'76; assistant professor, '79-'80; G. S. Moler, '75, instructor, '75-'76; assistant professor, '80, and so continues; P. H. Perkins, '75, instructor, '76-'77; E. D. Preston, '75, instructor, '75-'76; F. W. Simonds, '75, instructor, '75-'76; Irving P. Church, '78, assistant professor, '76, and so continues; Frank E. Taylor, '76, instructor, '76-'77; Charles E. Van Velzer, '76, instructor, '76-'77; John T. Coon, '77, instructor, '77-'78; J. N. Gage, '77, instructor, '77-'79; assistant professor, '80-'82; F. B. Hine, '77, instructor, '77-'79; W. H. Kent, '76, instructor, '77-'79; W. E. Lucas, '77, instructor, '77-'81; assistant professor, '81-'82; W. S. Barnard, '71, assistant professor, '79-'81; Frank A. Wright, '79, instructor, '77-'79; Walter C. Kerr, '79, assistant professor, '80-'82; M. M. Garver, '76, instructor, '80-'82; G. L. Burr, '81, instructor, '81, and so continues; F. W. Rich, '81, instructor, '82-'83.

The whole number of instructors has been forty-three, and of these thirty-two have been students of the university. Of the instructors who had *not* been students of this university, there were, in 1868-'69, two; in '70-'71, one; in '73-'74, one; in '74-'75, two; in '75-'76, one; in '79-'80, one; in '80-'81, one; in '81-'82, one; in '82-'83, four out of six; in '83-'84, eight out of nine.

I am assured by the president that the increase in the number of instructors who had *not* been students of the university is merely circumstantial, and not at all likely to continue.

Of the instructors formerly students of the university twelve have been appointed assistant professors, of whom six remain in the university, and one has been appointed full professor.

The instructors have been selected from the different classes as follows: One from '79, two from '71, '72, '81, four from '73, '76 and '77, and five from '74. The assistant professors as follows: One from '69, '70, '71, '73, '75, '79, two from '77, and three from '74. The professors, one from '74. It will be observed that the class of '74 has furnished a much larger portion of the educational department of the university than any other class.

PHYSICAL CULTURE.

This department of the university is certainly organized upon a

splendid basis. Every representation made concerning it in the Register is entirely within the facts. The new gymnasium is daily used by large numbers of the students and the selection of the professor in charge was probably the most fortunate that could possibly have been made.* The importance of the department need not here be commented upon. Educators have, of late, rather exhausted themselves in eulogies upon the subject.†

ADMISSION AND CLASSIFICATION OF STUDENTS.

It is interesting to compare our standard, in this regard, with other colleges: *e. g.*, Harvard, Yale and the University of Michigan. In some respects the comparison is in our favor, but in several respects it seems to me (with due deference to the faculty) there is room for great improvement. For example, in the *Course of Arts* the requirements at Cornell are substantially the same as those of the same course at Harvard, Yale, and Michigan, except in the following particulars:

In Cornell, geography and physiology are required. They are not required at any of the other institutions named. At Harvard, in addition to the requirements at Cornell, the elements of physics, and translations at sight of easy passages in French or German; at Michigan, solid and spherical geometry, and American colonial

* The *Cornell Era* says: "It is gratifying to see the remarkable boom in the gymnasium since the arrival of the physical instructor, Dr. Hitchcock. All the available apparatus has been put in place and ready for use. The doctor seems to be the right man in the right place, and is very anxious to make his department as popular and beneficial as possible. At an early date all students of the university, with the exception of the seniors, will be required to submit to a thorough physical examination. The size of their limbs and chest, the strength of their lungs, etc., will be registered in a book for that purpose, so that a student can know how much he has developed his different muscles. Padlocks will soon be put on the lockers, and each student will have his own locker in which to keep his gymnasium and military suits. The horizontal and parallel bars have been damaged by the nails of the boots, and in order to protect them it has been found necessary to require every student that exercises to procure a pair of gymnasium slippers. No visitors will be allowed, either on the main floor or in the annex, so that the students will not be annoyed by the rabble from the town, which is in the habit of frequenting not only the hall but the bath-rooms. It has not yet been decided whether exercise will be made compulsory or not. Probably the question will not be settled this year."

† President Eliot's report, 1882-'83, p. 24; President Seeley's circular to the alumni, 1883; President Porter's address to the Yale alumni, 1883; President White's address at Buffalo, 1883; catalogue of the College of New Jersey, 1883-'84; Thwing's *American Colleges*, pp. 89-90; annual report of the Provost of the University of Pennsylvania, 1883, pp. 45-46.

history, are demanded. It would seem that since physiology has recently been made compulsory in this State in the public schools, a familiarity with that subject may be assumed upon presentation of a certificate showing a course of study on that subject, and that since geography may fairly be presumed to form part of an ordinary school education, these two studies might advantageously be dropped, and the elements of physics, easy translation of French or German, and American colonial history substituted. Certainly in view of the development in the university of the departments of modern languages and history, it would greatly facilitate the student's progress therein, as well as relieve the professors of much drudgery, if the subjects spoken of were required.

In the requirements for admission to the courses of science — in *Science and Letters*, in *Mathematics*, in *Chemistry and Physics*, and *Analytical Chemistry* at Cornell, in *Chemistry*, in *Mathematics and Physics*, and in *Astronomy*, at Harvard, in the course in *Chemistry* at Yale, and in the course in *Science* at Michigan, the requirements are somewhat the same. At Michigan, however, the standard is higher than in any of the others, and at Harvard and Yale, slightly higher than at Cornell. For example, Cornell and Harvard require in geometry only plane geometry. Yale and Michigan require plane, solid, and spherical. In algebra, Cornell requires only through quadratic equations. Harvard requires algebra entire for all courses except chemistry. Yale and Michigan require algebra entire for the courses mentioned above. Harvard, Yale, and Michigan require four books in Latin for all the courses mentioned — Cornell none. Both Harvard and Yale require the elements of trigonometry, and Michigan requires, besides, the elements of physics and botany, and the outlines of American colonial and revolutionary history. It is evident that a great advance must be made to entitle Cornell to rank with Michigan in its scientific courses.

The requirements for admission to the courses in *Agriculture*, *Architecture*, *Engineering* and *Mechanical Arts* at Cornell, *Agriculture* and *Engineering* at Yale, and *Engineering* at Harvard and Michigan, are somewhat analogous, but with much less required at Cornell than at the others. For example, only plane geometry is required at Cornell; at Yale, Harvard and Michigan, plane, solid and spherical geometry is demanded; in algebra, at Cornell, the requirements extend only through quadratics; in all the others, algebra entire is demanded. In addition to the subjects required at Cornell, there is demanded at Harvard and Yale the elements of trigonometry and four books of

Cæsar in Latin ; at Harvard and Michigan, the elements of physics ; at Yale, elementary and descriptive chemistry, and at Michigan, geology, primary English literature and American colonial and general history.

It will be observed that there must be a great advance made in these courses at Cornell to place it upon an equality with Michigan.

The requirements for admission to the course in *Natural History* are somewhat analogous at Cornell, Harvard and Yale. At Harvard and Yale, physiology is not required. At Yale, plane, solid and spherical geometry is required ; at Harvard and Cornell, the first six books of plane geometry only. At Yale, algebra entire is required ; at Cornell and Harvard, algebra through quadratic equations. French or German, easy reading, is required at Cornell and Harvard, but not at Yale.

The Greek alphabet, and enough knowledge to analyze scientific words, is required at Cornell, but not at Yale or Harvard. The elements of physics and chemistry are required at Harvard, and the history of the United States at Yale.

It will be seen that the requirements in the different colleges are very diverse, but it seems to me that the addition of the elements of physics and chemistry and United States history might advantageously be added to the studies required for admission to Cornell.

The requirements for admission into the courses in *Philosophy*, in *Literature*, in *History* and *Political Science* at Cornell and in *Philosophy* at Yale and Michigan are somewhat analogous. At Yale, physiology and geography are not required. At Yale and Michigan, plane, solid and spherical geometry is required ; at Cornell, the first six books only. In Latin the requirements at Cornell are very much higher than at Yale, embracing, in addition to the requirements of the latter colleges, six to twelve books more of Virgil and six orations of Cicero.

At Michigan, in addition to Greek and Roman history, American colonial and revolutionary history is required ; certainly this requirement might be added with advantage to the course of history at Cornell. At Yale, the elements of trigonometry are required.

The requirements for admission to the *Medical Preparatory* course at Cornell and Yale are somewhat alike ; but at Yale plane, solid and spherical geometry is required ; at Cornell, the first six books only. At Yale, algebra entire is required ; at Cornell, through quadratics only. At Yale, the history of the United States is required ; at Cornell, not. This latter requirement might, it seems to me, be advantage-

ously made here. President Eliot, of Harvard University, in a recent address, very frankly confessed that "the ordinary requirements of American colleges in the matter of history are ridiculously absurd." He believes if any history is required of boys, it should be the history of England and America during the last two hundred years.

TUITION.

The charter requires that the several departments of study in the university shall be open to applicants for admission thereto, *at the lowest rate of expense consistent with its welfare and efficiency* (section 9). It was to this proviso, undoubtedly, that Mr. Cornell alluded in his speech at the inauguration, when he said that it was expected to have commenced an institution here which would "place at the disposal of the industrious and productive classes the best facilities . . . on such terms as the limited means of the most humble can command."*

In accord with this view the tuition fee was, during the first few years of the university, made ten dollars per term or thirty per annum; it was subsequently increased to fifteen dollars per term or forty-five per annum, and, again, to twenty-five dollars per term or seventy-five per annum, at which sum it now remains. This is very moderate for an institution of the class represented by the university, as a comparison with other colleges in this State and elsewhere, in this respect, will clearly indicate. For example, in this State, tuition at Columbia is \$150.00 per annum; at Union, \$120.00; at Hamilton, \$60.00; at Hobart, \$50.00; University of New-York, course in engineering, \$50.00; the Troy Polytechnic Institute, civil engineering, \$200.00; Madison University, \$30.00; St. John's College, \$60.00; University of Rochester, \$75.00; Vassar College, \$100.00; Rutgers Female College, \$200.00; Wells College, \$100.00; Syracuse University, \$30.00. At Harvard it is \$150.00; at Yale, \$140.00; at the College of New-Jersey, \$125.00; Dartmouth, \$90.00; Johns Hopkins, \$80.00; Williams, \$90.00; Amherst, \$100.00; University of Pennsylvania, \$150.00, and University of Michigan, \$20.00.

I do not think that tuition at Cornell should be reduced. It is not excessive, in view of charges made in similar institutions, and it furnishes but a very small source of supply for the wants of the institution. The greater portion of the students can pay the amount required

*Mr. Cornell's speech, Register 1869-'70, page 16.

without difficulty, and the reduction would result in the loss of considerable money to the institution without any advantage whatever.

The tuition should, it seems to me, be kept where it is, but the entire amount received therefrom should be returned to deserving students in the way of scholarships and fellowships. That would, indeed, be a disposition of the funds which would meet in full the requirements of the charter, and the wish of the founder of the university, and would, I think, be the treatment of our students eminently in keeping with the great hopes entertained of the university by the people of the State and nation.

PROGRESS AND STANDING OF THE DEPARTMENTS OF THE UNIVERSITY.

After my election as trustee I heard so many diverse views expressed concerning the standing of the various departments of the university, that it became very difficult for me to determine the real situation of affairs. It was insisted by some that the department of needed strengthening; and then, just as vigorously by others, it was intimated that the notion that the department of needed any assistance was perfectly absurd; that really, the only weak point in the university was the department of (a totally different one from that first mentioned), and so on. At last, starting with the axiomatic principle that the strength of a department must consist in the strength of its professors and their quantity in proportion to the number of students to be instructed, I examined the Registers of this university since its inauguration, with the idea of ascertaining the increase or diminution, if any, in the number of professors, assistant professors and instructors in each department since 1867. I next examined the official circulars of Harvard, Yale, Michigan, Johns Hopkins, Pennsylvania, Columbia, Hamilton, Amherst, Williams, Dartmouth and Princeton, to ascertain the number of professors, associate professors, instructors and tutors in each college and university, in the departments of Philosophy, Greek, Latin, Sanskrit and Chinese, Anglo-Saxon, South European languages, German, French, History (General), American History, English Literature, Physics, Biology, Chemistry, Geology, Mathematics, Political Economy, Civil Engineering, Mechanic Arts, Veterinary Science, Architecture, Agriculture and Botany.

I then endeavored to ascertain from our own university records the number of students pursuing each study above indicated and the number of hours devoted thereto by each instructor, with the idea of insti-

tuting a comparison between our own university in this particular, and those I have mentioned.

I was not able to ascertain any such facts from the records of our own university; hence I did not endeavor to ascertain similar facts relating to other institutions. At the last meeting of the board of trustees it was resolved that, in the next published report of the president and professors, these defects should be supplied for the past year at least.

If the information concerning the above facts were all at my disposal, as I had purposed they should be, I expected to be able to determine pretty accurately how each department in our own university stood, both absolutely and relatively.

If the incoming trustee cares to complete the information, it may then prove valuable. I hope to do so myself, and to place it at his disposal if he desires to include it in his next report. I have given the information, as far as it goes, in respect to the number of professors in the present report. If a comparison were instituted between the different colleges, without presenting also the number of students, it might prove misleading, and unjust, and, although I had prepared such a comparison, I do not now present it.

The condition of the several departments may now be considered:

PHILOSOPHY.

This department has long been felt by the trustees to be in an unsatisfactory condition. It was established in 1867 with one professor, and while other departments have grown and new ones been established, this department has remained in *statu quo*. The range of subjects under the charge of the professor in the department necessarily divides his attention, while his onerous duties as registrar necessarily compel him to devote much of his time elsewhere. In this department Harvard, Yale, Ann Arbor and Johns Hopkins have each two full professors, while Princeton, in the philosophy taught there—narrow and restricted as it may be—outranks all others in the number of professors. The only answer which I can give to the natural question why there has been no greater progress in the department is, that it is not only a declared principle in this University but an established practice to give “preference to studies *practically useful*,” and it will hardly be disputed that philosophy cannot be placed in that category.* Nor is the slight stress placed upon this

* “Philosophy can bake no bread; but she can procure for us God, freedom and immortality.”—Carlyle’s translation from Novalis.

study confined to this university alone. I am surprised to find in my conversations with educators how little importance is now attached to this study. It is regarded as so purely theoretical and so unsatisfactory — the apparent establishment of one system giving place in a few years to another, and this in a short time to another — that it is insisted that a student's time can be better devoted to studies productive of more definite results. Still, the department exists, and the standard of excellence in this department, and in every other, as laid down by the founder of the university, is "to furnish the *best* facilities" to be found; and, of course, one professor, however able, especially when burdened with other duties, cannot meet this requirement. This situation is felt by all the trustees, and I have no doubt next year will witness a marked improvement in this department — formerly the crown of glory of a college course.

GREEK.

The number of students in this department has steadily declined in recent years. This is not surprising. Cornell, with its well-known tendency to studies of a practical character, indicates, perhaps, more rapidly than any other institution the public sentiment against the study of Greek which has recently manifested itself in New England in Mr. Adams' recent pamphlet, the views of which it would almost seem President Eliot shares — judging from the fact that within a month it has been announced that Greek and Latin are elective at Harvard during the freshman year. I think that the declaration of our faculty in respect to Greek is worthy of commendation, viz., that the course in arts is regarded as a distinctively classical course, and Greek as its characteristic study: this will tend to reduce the number of those graduating in the course in arts, but it will result in a higher quality of scholarship in those who receive the degree. And this plan seems to be fairer and wiser than that recently adopted at Harvard, where the degree of A. B. may hereafter be given without meaning that the recipient has any more than an elementary knowledge of the classics. The degree has a specific meaning among educated men, and to allow it to be taken without the study it signifies degrades it and misuses it. Cornell rightly does not do this. It is not necessary; the fundamental principle of "equality between different courses of study" saves it from this folly. If that principle were also openly declared at Yale and Harvard it would prevent much inconsistency and many awkward efforts to introduce the principle while openly disavowing any attempt to do so. In Greek, and in Latin more per-

haps than in any other studies in the university, is enthusiasm on the part of the instructors required, and, I have no doubt, supplied. The statement made in the recent pamphlet issued by Prof. Flagg, that in the advanced class "it is assumed that the student knows his grammar and has a fair vocabulary at his command, and the main purpose is to cover as much ground in the best literature as can be done consistently with critical reading"—this statement is worthy of the heartiest commendation, as indicating the highest aim of the department to be *literary*, not *grammatical*—a remark which might seem almost a truism, but which is so seldom appreciated that even in the best universities the protracted study of the grammar and wearisome dinging upon some one's theory of "moods and tenses" have become the dry rot of classical education, and, as I believe, the cause of so many fierce attacks upon it. He who has been enabled, by the study of Greek and Latin, to understand the life, the civilization, and the literature of Greece and Rome, will never attack classical education or underrate its value.*

* The following article from the *Cornell Daily Sun* indicates, perhaps, a source of weakness which may be hereafter guarded against:

"At this season of the year it is customary for the authorities to make known the facilities in various departments of the university by more or less extensive advertising. Last year there was a greater expenditure for this purpose than ever before, and the large size of the entering class last fall warrants the belief that judicious advertising is as profitable to an educational institution as in any line of business. The most direct means of acquainting the educated public with the advantages of our courses is through the best periodical literature, and this is especially true of the technical courses. The university officials have been quick to recognize the utility of such advertising, and last year the departments of architecture, engineering, mechanic arts, chemistry, and physics were all represented in their respective technical journals. It is strange this year, however, that a journal of the literary character of the *Nation* should be made the medium for advertising the technical courses only, and not a word said of the departments of history, languages, literature, or any of the more liberal courses. An advertisement such as is now current in the *Nation* is in many respects a positive injury to the interests of the university, the inference being that Cornell is an exclusively technical school, for the education of engineers, architects, mechanics, etc. However desirable it may be to promote these features of the university, and none will doubt their importance, yet it should not be done at the expense or exclusion of the literary departments. It is a common observation that with each entering class, the proportion of technical students, notably engineers, is increasing, which is all very well provided there is not an accompanying decrease in the numbers of literary students. As much care should be taken to attract the latter class as the former, and this we sometimes feel is not being done, for while the engineering courses are crowded to repletion, and the employment of additional instructors is necessary, the professors in Greek, Latin, and English Literature have reason to complain of the small and continually decreasing number of students attending their classes. No one

LATIN.

It will, of course, always seem to the old students that the loss of Prof. Peck and the Latin department were contemporaneous, yet Prof. Hale comes to us with the highest testimonials, and the undergraduates in his department are his devoted admirers, expressing themselves enthusiastically in his favor.

ANGLO-SAXON.

This department still maintains the high rank it has always occupied under the charge of Prof. Hiram Corson.

SANSKRIT AND CHINESE.

This department, in charge of Prof. Roehrig, continues to attract students. It is suggested, however, that these studies be restricted among undergraduates to specific courses. Unworthy students, I hear, sometimes take these studies as optional studies for a short period to enable them to gain higher rank, and with no intention of profiting by or continuing the study of the languages.

SOUTH EUROPEAN LANGUAGES.

This department was established in 1868-'69, and has steadily grown in efficiency. At first it had an assistant professor in Spanish, in 1871 it was increased by an assistant professor in Italian, and since 1876 it has had a full professor in Italian and Spanish. I believe the instruction given in the department to be worthy of high commendation.

GERMAN.

This department was established in 1868-'69, with one non-resident professor, and one-half an assistant professor. The non-

will say that this is because the instruction or facilities in these departments are inferior. The names of Professors Flagg, Hale and Corson are sufficient vouchers for the character of their work. The small number of students in their departments is rather to be attributed to the greater efforts which have been made to advertise the technical courses, and the consequent reputation the university has acquired in these departments has overshadowed its other features, and has given rise to a misconception of its real character. This misconception is emphasized by such advertisements as the one appearing in the current numbers of the *Nation*, and the impression is produced that Matthew Arnold's well-known criticism of the university is not entirely without foundation."

resident professor was nominally continued until 1878. In 1869-'70, the department had two assistant professors, in 1871-'72, 1872-'73, three. In 1873-'74, 1874-'75, two. In 1875-'76, one and a half. In 1876-'77, one-half a full professor, and two assistant professors. In 1877-'78, to 1879-'80, two full professors, and one and a half assistant professors. In 1880-'81, one full professor, and one assistant professor. In 1881-'82, 1882-'83, one full professor, and two assistants. In 1883-'84, two full professors.

The changes, it will be observed, were very considerable, but it has been impossible for me to discover any principle upon which the changes have taken place.

The remark of President White in his last report to the board of trustees, in reference to this department, I believe to be fully justified by the facts. It is as follows: "Circumstances have led me to scrutinize the instruction in this department with more than usual care, and I do not hesitate to say that it is equal to any department of its kind in the country — better, indeed, than any of which I have knowledge, save one."

FRENCH.

This department was established in 1867-'68, with one-half a professor. From 1869-'70 to 1875-'76, it continued the same, with two assistant professors. In 1875-'76, it had one-third of a full professor, and two and two-thirds assistant professors. In 1876-'77, it had one-third of a full professor, and one and one-third assistant professors, and so continued until 1882-'83, when it became one-third of a full professor, and one-half an assistant professor.

It is to be hoped that ere long such instructors will be added to the department that Prof. Roehrig may be enabled to devote his noble scholarship to higher purposes than listening to freshmen recitations. It is conceived his talents might profitably be used with greater advantage in the higher classes.

HISTORY (GENERAL).

In 1869-'70, this department was established with one full professor and one non-resident professor, and so continued until 1870-'71, when the department was increased by one assistant professor, and so continued until 1881-'82, when it had one full resident professor, and two full non-resident professors.

It seems proper in this connection to allude to the valuable services of Prof. Charles Kendall Adams, in this department. The high

standard of his scholarship and his valuable, instructive and interesting lectures are highly appreciated by the students. The hope is universal that beneath his name in the Register, the words "non-resident" may ere long disappear and the word "professor" alone remain.

AMERICAN HISTORY.

This department was established in 1881-'82, with one full professor, and so continues.

The rapidity with which educational institutions move in this country, and the necessity of careful supervision and watchfulness that their progress may keep pace with that of similar institutions, is well illustrated in this department. In the last report (1883) made by the president to the board of trustees, on page 20 it is said:

"I desire to remind you that, first of all American Colleges and Universities, we at Cornell have established a full professorship, devoted to American history. Strange, as it may seem, no such department exists elsewhere in this country."

Two months had not elapsed after that announcement before similar departments were instituted at Harvard and the University of Pennsylvania — the chair in Pennsylvania University being filled by John Bach McMaster.

It is quite needless to say that under Prof. Tyler this department is in most able hands. I had myself the pleasure of attending one of the lectures during a recent visit to Ithaca, and can only assure the alumni that a repetition of the same experience on their part will convince them of the excellent work doing in this department.

ENGLISH LITERATURE (INCLUDING RHETORIC AND ORATORY).

This department was established in 1871-'72, with one-half a professor in English literature, and one-half a professor in rhetoric. In 1881-'82 it had an assistant professor. From 1875-'76, to 1880-'81, an instructor, in 1883-'84, two instructors.

The high appreciation of the recent courses of lectures delivered by Prof. Hiram Corson at Johns Hopkins University, and the ovation he there received, were peculiarly gratifying to the trustees of this university as furnishing to them but another evidence of what they were long ago assured that the department of English literature was in able hands. The instruction given by Prof. Corson, as distinguished from that pursued in most colleges, well illustrates the difference between an instructor who presents the dry-bones — the facts, the statistics of the

subject — and one who is able to make the subject all aglow with life ; it is needless to say that the latter is the course pursued by Prof. Corson. The reading by Prof. Corson of a single poem, with his comments, is worth more to the worthy student than a book full of facts about a poet and his poetry.

The presentation of the portrait of Prof. Shackford to the university by the senior class during the present year is a sufficient indication of the esteem in which he is held. The words of Mr. Story in presenting it will, I have no doubt, meet a response in the heart of every worthy alumnus, who has had the advantages of the professor's companionship and friendship. Mr. Story, speaking for the senior class, said, "We have come to entertain toward Professor Shackford a deep and enduring emotion, which has been inspired since our sojourn here. It may be similar to that of preceding classes, but we feel that it is deeper and more lasting. We early recognized in him our friend. A frank and open nature, a quick and tender sympathy, established him in our hearts and impressed us with his kindly spirit. In all our class-room relations he has ever held us with a charm which could only come from a good, noble and beautiful nature. His character is one to be loved, and we cannot fail to love him. What remains but for me to express the hope that our venerated and endeared professor may yet see many years of usefulness, and that he may go up and down these beautiful hills, honored and beloved by many future classes, and that the day may be far distant when his voice shall no longer be heard in these halls."

The greatest need of the department is that of an assistant professor in elocution and rhetoric, who may relieve the senior professors of much of the drudgery inseparable from the discharge of the duties of the department. If expressions of regret for his departure among alumni and undergraduates are any inducement whatever to Mr. Lucas to return, he has them in abundance. The memory of his faithful and valuable labors still remains as an inducement for their continuance in the future.

PHYSICS.

It is only necessary to say of this department that it is still in charge of Prof. Anthony to indicate that its excellence is very high. In the character of its instruction, and the facilities it affords students, the department is probably on a par with any other in the country, if not in the world. From all parts of the country, and even from Europe, professors bend their steps thither to examine it.

BIOLOGY.

Under this head I class the department of physiology, comparative anatomy and zoology, in charge of Prof. Wilder and Assist. Prof. Gage, and the department of entomology and general invertebrate zoology in charge of Prof. Comstock. The character of the instruction given by Prof. Wilder is too well and favorably known to need special comment. He is one of the professors who has remained with us through evil report and through good report, and whose name is enshrined in the hearts of the alumni as one of our most enthusiastic leaders. It affords me great pleasure to say, from the information I have been able to acquire concerning it, that the department of entomology is probably better in the character of its instruction than any other existing elsewhere in the country. It certainly is no small credit to Cornell that at the head of this department stands one of its own students, John Henry Comstock, '74.

CHEMISTRY.

This department was established in 1868-'69, with one full professor in agricultural and analytical chemistry; increased in 1869-'70 by a professor of general and analytical chemistry and mineralogy. These two full professorships have so continued until the present time. In 1871-'72 there was one instructor in chemistry. In 1873-'74 there were three instructors, who continued during 1874-'75. In 1875-'76 the number was reduced to two, at which it still continues. In 1882-'83 an assistant professor of general chemistry and mineralogy was added, who still continues.

The statement that the department still continues under the charge of Profs. Caldwell and Schaeffer and their associates will indicate to the alumni without further comment that the high rank always maintained by this department still exists.

The old students of Prof. Hartt will, I think, always believe that no one can be found who can worthily fill his place; yet the undergraduates speak in high terms of his successor, Prof. Samuel G. Williams, as an instructor; and while the fact that he was once principal of the Ithaca High School may be to some minds a weighty argument against his ever being able to fill any other position it does not prove convincing to me. The instruction given by Prof. H. T. Williams meets with the highest praise, and I can assure the alumni that in his hands the department will take high rank in the university and in the country.

MATHEMATICS.

This department was established in 1868-'69, with one full professor and one assistant professor. In 1869-'70, it had one professor and three assistant professors. In 1870-'71, one full professor and three and a half assistant professors. In 1871-'72, one full professor and four and a half assistant professors. In 1873-'74, and 1874-'75, one full professor and four assistant professors. In 1875-'76 and 1876-'77, it had one full professor and two assistant professors, and two instructors. In 1877-'78, it had one full professor and three assistant professors, and so continued until 1882-'83, when it had one full professor and two associate professors, and so continues. The recent increase of students in the University indicates clearly, it seems to me, that there should be another assistant professor added to this department at once, if the number of professors in the past is any criterion as to the amount of work to be done.*

The eminent rank as a mathematician which Prof. Oliver occupies — it being conceded he has no equal in this country, unless it be Prof. Sylvester of Johns Hopkins — indicates that he should be left as untrammelled as possible in order that he may be able to devote himself to those students who may come to him as specialists in the higher mathematics. Of the high character of the instruction given by Profs. Wait and Jones I can speak from personal knowledge; the department could not be in better hands; but the classes are excessively crowded, and it is impossible for these professors, with their present number of students, to do justice to themselves, the students, or the university. This fact is recognized by the trustees, and will no doubt not continue much longer a subject of complaint.

POLITICAL ECONOMY.

This department was practically established in 1881-'82, with one non-resident professor. In 1882-'83, it had one professor of history and theory of politics, and one assistant professor, and two non-resident professors in political economy. In 1883-'84, it had one full professor of the history and theory of politics, one assistant professor of political economy, one non-resident professor in political economy, and one non-resident professor on finance and currency.

It seems proper in this connection to allude to the invaluable services of the new professors in this department, Profs. Tuttle and

* This addition has since been made.

H. C. Adams. Both of these gentlemen are doing the best work, and are exciting great enthusiasm among the students. The hope is expressed by many that ere long Prof. Adams' permanent residence in Ithaca may be indicated upon the Register.

CIVIL ENGINEERING.

The department of civil engineering has been almost phenomenal in its rapid growth during the past ten years of its existence until it now assumes an importance second to no other department of the institution. Prof. Estevan A. Fuertes, dean of the faculty of civil engineering of Cornell University, is an earnest and enthusiastic teacher, and, with his able assistants, Profs. Church and Crandell, is entitled to a large share of the credit of bringing this important branch of study to its present degree of excellence. Twelve years ago this department had but one student — and he a post-graduate — one room, one professor, an old compass and a tape or two. From this small and inauspicious beginning it has become at the present time the largest department connected with the institution. There are now upwards of one hundred students pursuing the study of civil engineering, and it is confidently believed that no other department of the kind in the country is so completely equipped as this. The recent removal of the chemical department from the large frame structure in which it was originally located to the new chemical and physical laboratory building left the former building vacant. The internal arrangements of the old chemical laboratory building have been rapidly remodeled and repaired. Both the first and second stories of this building are divided into recitation, draughting and lecture rooms, and general and hydraulic laboratories and museums. The two museums are located on either side of the north entrance of the first floor, and contain a large and varied collection of engineering models and instruments. Among them may be named: The Muret and the Schroeder collections of models in descriptive geometry and stone cutting, supplemented by many of the Olivier, and other special models, made at the university. The De Lagrave general and special models in typography and geognosy. The Digeon collection of movable dams and other hydraulic structures. The complete and extensive Grund and Sohn collections, embracing a great variety of bridge, roof, masonry, and carpentry details, illustrating a large number of celebrated engineering works, in iron, wood, brick and stone. Several collections of European photographs embracing over seven hundred prominent engineering works, photographed at the several stages of progress during their con-

struction, besides many photographs, diagrams and models of American structures. A complete railroad bridge of one hundred feet span, of modern design — the bridge and false works being one-fourth of the natural scale. Among the instruments of precision contained in the museums may be mentioned a Troughton and Sims astronomical transit ; a large universal instrument by the same makers reading to single seconds by micrometers and levels ; sextants, astronomical clocks, chronometers and chronographs ; one four and one-half and one three-inch equatorial, together with all the necessary equipments of a training observatory. For geodetic and hydrographic work the department possesses a secondary base line apparatus made under the direction of the coast and geodetic survey office, and recently improved by Fauth & Co., also a large variety of portable astronomical and field instruments, including sounding machines, deep water thermometers, tacheometers, pedometers, heliotropes, etc., etc. Of field instruments owned by the department are nearly every variety of engineers' transits, theodolites, levels, compasses of all descriptions, omnimeters, tacheometers and various other kinds of instruments for measuring angles ; also a large number of special instruments, such as planimeters, pantographs, elliptographs, arithmometers, pocket altazimuths and sextants, hypsometers, and nearly every kind of meteorological instruments.

The special library of this department contains many valuable works, among which are the extensive publications recently presented to it by the French government. The professors in charge of special engineering subjects are all educated and practical engineers as well as experienced teachers. The department is a constant contributor to the cause of science in various ways. During the past seven years the various students in this department under the personal direction of Professor Fuertes have been engaged in triangulation of the hydrographic basin of Central New-York, including the typography and hydrography of the lower lakes, which also includes their astronomical positions, together with reports on the fauna and flora, and geological and mineralogical history of the region. All of the above practical work has been contributed by the department to the coast and geodetic survey of the United States.

It has been the aim from the outset to supply to the country young men properly fitted for the work actually required by the present condition of civilization. Great care is taken to so shape the growth of engineering as a profession, that the future social standing and field of influence of the engineer may be improved. The main trouble with our schools has, in the language of the dean of the department,

"Been the fact that they have endeavored to copy and often to ape European methods which were entirely inapplicable to our country, on account of our peculiar condition in nearly every question touching upon the education of our young men ; for we differ materially from European countries in our political, religious, commercial and industrial aims and purposes. The problems which the engineers have to solve in this country have been, in the main, original, and will continue so to be for some time to come. The old-fashioned system of education cannot produce the effects required in our case."

The department of engineering of the Cornell University has been the first, in this country at least, which has sought to teach engineering practically as illustrated by laboratory experiments performed by the students themselves. The results of the system employed here has been surprising. Graduates from this department have risen to prominent positions, and the oldest graduate has not been a practitioner over ten years. They are in greater demand than the supply. Their services are sought after before they graduate, and it is a very common thing to read in the newspapers : " Engineer wanted ; Cornell graduate preferred." There is the greatest degree of cordiality between the students and professors in this department.

The foregoing is substantially the statement made in the *Ithaca Journal* during the present year, and it is so just and so true, that I have made it my own statement concerning the department.

The schedules relating to the engineering department in this and other colleges will be found valuable and instructive. They have been placed in the appendix.

MECHANIC ARTS.

This department was established in 1868-'69, with one-half a full professor in industrial mechanics, and one professor in practical mechanics. It so continued until 1872-'73, when it was increased by an assistant professor of mechanical drafting. In 1874-'75, it had one professor of practical mechanics and one-half a professor of experimental mechanics, an assistant professor in mechanical drafting, and an instructor as director of the machine shop. From 1868-'69 to 1873-'74, it had also one non-resident professor upon the subject of mechanics as applied to agriculture. In 1875-'76, the department was increased by one instructor in mechanic arts, who continued until 1877-'78. In 1879-'80, the instructor in mechanic arts again appears, only to disappear the next year. In 1880-'81, the department had one full professor in mechanical engineering, and one-half a professor

in experimental mechanics, one assistant professor in mechanical drafting, and one assistant professor of mechanics. The department up to the present has remained the same as in 1880-'81, with the exception of an assistant professor in mechanics, who disappears in 1881-'82.

The statements of the scope of this department as given in the Registers of 1868-'69, page 71, and of 1869-'70, page 102, are interesting as indicating the hopes of what the department would be, contrasted with the position that it now actually occupies.

The condition of this department has for some time been felt to be unsatisfactory. It will accomplish no good to explain why or how, as the facts are already fully understood by the alumni of the department, who are the ones directly interested. It is more to the point to be able to say that the present condition will doubtless be immediately improved; the steps already taken by the trustees are indicated hereafter under the heading of the year's progress.

VETERINARY SCIENCE.

While Prof. Law remains in charge of this department the instruction will always be of the highest character. It is a source of regret that there has not yet been given to the university sufficient funds to establish a veterinary college. It is hoped that something of this kind may be done next year.

ARCHITECTURE.

This department was established in 1871-'72, with one full professor of architecture, and so continued until 1873-'74, when a professor of free-hand drawing was added. It so continued until 1875-'76, when an instructor of architecture was added, who continued until 1878-'79. In 1881-'82, an assistant professor of architecture was added, who, together with the professors of architecture and free-hand drawing, still continues.

In this department excellent progress is being made, and the department cannot but reflect great credit upon the university. Its professor and many of the alumni, however, realize that it needs strengthening in several important particulars, and the trustees, I believe, are in hearty accord with them upon this subject. The constant thoughtfulness and liberality of President White toward this department is worthy of especial mention and of perpetual remembrance.

AGRICULTURE.

This department was established in 1868-'69, with a full professor in

agricultural chemistry, veterinary medicine, botany, and horticulture, and one-half a professor in economic geology, one assistant professor in agriculture, one instructor in agriculture, and a director of the farm, meteorological observatory, and one lecturer. In 1869-'70, the full professors continued the same. The assistant in agriculture continued, as did the instructor. In 1871-'72, an instructor was added in botany, the other officers remaining the same. In 1872-'73, a full professor of agriculture was added, and a lecturer on agriculture. The additional lecturer disappeared the next year.

The department remained substantially the same, with the addition of an assistant professor of botany, until 1879-'80, when an additional assistant professor in entomology appears, who continued the next year. In 1881-'82, the number of professors, assistant professors, and instructors was diminished, so that the department then had a full professor of agriculture, of agricultural chemistry, veterinary medicine, entomology, botany, and horticulture, and economic geology, an assistant professor in chemistry, entomology, and director of the farm and meteorological observatory. In 1882-'83, the assistant professor of chemistry and entomology disappears, with which exception the department remained the same as in 1881-'82.

BOTANY.

This department was established in 1868-'69, with one full professor of botany and horticulture and agriculture, who still continues. In 1871-'72, the department was increased by an instructor in botany, who continued until 1876-'77, when the instructor disappears, and the department was increased by an assistant professor in botany, who still continues.

Of this department there are only words of praise to be said. The services of Prof. Prentiss in the past and in the present to the university have been and are invaluable and his indefatigable labors and untiring zeal in devoting himself to the arrangement of the campus cannot be too highly appreciated. His efforts are ably seconded in every respect by assistant professor Dudley. It is to be regretted that the department cannot be placed, in respect to the number of instructors, more upon an equality with Harvard than it is; but that will come, undoubtedly, in good time.

LIBRARY.

The standing of our library, considering the number of books and pamphlets it contains, in comparison with some other colleges and

universities, is as follows: Harvard 1, Yale 2, Dartmouth 3, Princeton 4, Columbia 5, Cornell 6, Amherst 7, Ann Arbor 8, Williams 9, Johns Hopkins 10.

A complete list of the gifts to the library has been furnished me by Mr. Harris, the acting librarian, and is appended hereto as one of the schedules.

It is impossible to speak in a tone that will adequately express the regret felt at the misfortune (in the shape of a gigantic law-suit) which causes the magnificent gift of Mrs. Jennie McGraw Fiske to the library to be withheld from the university for the present. It has resulted in the trustees not being able to appropriate for the library a sum that exceeds ninety dollars for each department after deducting the sums needed for periodical literature, administration, binding, etc. The founding of the fellowships furnishes an additional reason — if any were needed — for an increased expenditure, as it is intended by these to promote additional research, and yet it is in those very documents which such students need that, except in certain few departments, the library is most defective. I refer to original documents, special monographs and transactions of learned societies. The trustees appreciate these facts, and deeply regret that at present the funds available to supply these deficiencies are so small. It is, however, hoped that next year there will be a considerably larger sum available for the purposes above-indicated.

An excellent feature has been introduced in the library during the present year; that is, the action of the library council in permitting professors to recommend that such students as they deem worthy be granted permission to enter such alcoves as contain the works they desire to study for the purposes of consultation for specified periods of time. This permission is indicated to the librarian by a card signed by the professor, and containing the student's name, the subject to be studied, and the time for which the permission is granted.

The undergraduates state to me that our library is not kept open as many hours as that of other colleges; that at Johns Hopkins the library is open thirteen hours and at Yale during Sunday. I had hoped to be able to inform myself about these facts but in the limited time at my disposal have not been able to do so. Perhaps this topic may seem to the incoming trustee to be worthy of investigation.

MILITARY DEPARTMENT.

This department is in a most flourishing condition, and with Prof. Schuyler at its head the enthusiasm heretofore manifested by the

students in their work under Prof. Burbank is likely to be fully sustained if not intensified.

CONDITION OF CLASS-ROOMS.

The condition of the class-rooms in the old buildings in respect to ventilation cannot be commended. During a recent visit I found them uncomfortably filled and with the ventilation very poor, so much so, that the air of the average court-room is positively bracing in comparison.

GENERAL CONDITION OF THE UNIVERSITY.

My own opinion may be stated in the language of Prof. Orrin Root, Jr., of Hamilton College. "What is at Cornell is for work; and there are in many directions wonderful stores of appliances to have been gathered in so few years. It is not a play institution, nor are they content with low attainments. In every department they are aiming at the highest mark and pushing for the best work."

III. PROGRESS MADE DURING THE PRESENT YEAR.

Perhaps the most important advance made during the present year is the establishment of

FELLOWSHIPS AND SCHOLARSHIPS.

It has long been felt that Cornell was not keeping pace with the expectations of its friends and the public at large in the matter of fellowships and scholarships, and yet so imperative have been the demands made upon its income that, until the present, any movement in the direction indicated seemed impossible. During the present year, however, at their meeting in May, the trustees set apart a sum representing the interest upon \$155,000, for the establishment of scholarships and fellowships for students generally, men and women, and also a sum representing the interest upon \$50,000 for the same purpose, for women only. According to the plan adopted there will be thrown open to competition, to students generally, at the entrance examinations in September, 1884, six scholarships of \$200 each; and the same number in the years 1885, 1886, 1887, making the entire number twenty-four. For women alone there will be thrown open to competition in September, 1884, three scholarships of the value of \$200 each; and in 1885, 1886, 1887, the same number of the same value, making the

entire number for women exclusively twelve. There is no inhibition upon a student competing for a scholarship during each year of his or her course. The scholarships are awarded during the first year to those passing the best examinations at the entrance examinations, and rewards are made upon examinations at the close of each year.

Seven fellowships have been established also of \$400 each, for one and, in extraordinary cases, two years. These are open to graduates of all colleges.

In respect to both scholarships and fellowships—merit in scholarship alone is made the basis of award—the poverty or wealth of the candidate is not considered.

It has been decided to award a free scholarship to the public schools of Freeport, Illinois, upon the receipt of the obligation of resident Cornell graduates to contribute one-half of the amount of such scholarship.

The devotion of the members of the faculty to the highest interests of education rather than to their own was strikingly illustrated in the earnest advocacy on the part of the faculty of the establishment of these scholarships and fellowships; and at the meeting of the trustees, at which the subject was under discussion, there was present a committee of members of the faculty, who earnestly requested the trustees to establish them, although it was undoubtedly perfectly plain to them and the entire faculty that the devotion of funds to these purposes would necessarily reduce the amount that might otherwise be applied to an increase of the professors' salaries.

Another very important step has been the selection of a

LADY PRINCIPAL OF SAGE COLLEGE.

This lady selected, Mrs. Agnes M. Derkheim, comes with the highest testimonials. "It is believed that her religious character, wide social experience in Europe and America, extensive acquaintance with the best methods in the education of women, will be of great use in promoting the most satisfactory development of the lady students."

A highly important rule has been adopted, also, in reference to

WOMEN-STUDENTS.

These are now required, by a rule adopted by the executive committee of the trustees, to room and board at Sage College unless specially excused for due cause. The reasons which induced the executive committee to adopt this rule have been stated by them to be that in

Sage College every care has been taken to provide most completely for the comfort, health, and pleasure of the women-students ; room rent and board are furnished at cost ; a principal has been secured, whose intelligence and social experience cannot fail to prove stimulating, enlightening, and refining to the inmates of the college ; special provision has been made in the building for gymnastic training adapted to the wants of each woman-student, and which is under the charge of Dr. Hitchcock, Professor of Physical Culture ; yet, notwithstanding all these advantages, only one-half the women in attendance upon the university board at Sage College ; there are accommodations for 120 ; there are only about twenty-five enjoying them. The committee say : " This evidently cannot continue. The building must be used or given up. And yet there is probably no friend of the university who would not deeply regret to see this beautiful building, with its comforts, its attractive surroundings, its gymnasium, its green-houses, its parlors for social intercourse, its reading-rooms and society-rooms taken away from the lady students and converted into ordinary lecture-rooms and laboratories. The first result would undoubtedly be that the price of board and rooms in the neighborhood of the university would be increased ; . . . the most generous and extensive provision ever made in any university for the comfort of lady students would be made of no effect, and such students would be obliged to seek rooms and board at increased prices in remote parts of the town, with no such provision for comfort and enjoyment as at present, no general parlors, no baths, no special reading or society-rooms, no pleasing surroundings, and yet to pay a higher price than at present."

UNIVERSITY BUILDINGS AND GROUNDS.

By a resolution of the board of trustees during the past year the south university building will be hereafter designated " Morrill Hall " and the north university building " White Hall." Both of these buildings have also been supplied with steam-heating apparatus at a cost of about \$7,000. There have also been purchased for the memorial chapel memorial windows at a cost of \$1,600. The grading of the grounds of the university has been greatly improved through the indefatigable efforts of Prof. Prentiss, and the beautiful surroundings of the university cannot fail now to be a source of the keenest pleasure to the returning graduate.*

* The following tribute from the distinguished scholar, Dr. Irenæus Prime, in a recent number of the *Observer*, may perhaps convey to those alumni who have not

THE FACULTY.

A new professorship was established during the present year by action of the full board, entitled the Professorship of Physical Culture. By a special statute the duties of the professor are enumerated; he shall examine, instruct, and train the students of the university, both male and female, in matters pertaining to healthful and physical development, and perform the duties of medical examiner; at specified times be present at the general gymnasium to train the students and impart instructions, and, by means of a lady assistant, discharge similar duties at the gymnasium at Sage College. It is contemplated that there be made and kept proper physical measurements in accordance with the general system adopted at the gymnasium of Harvard University, Amherst College, and Wellesley and Smith Colleges; that statistics be kept similar in leading features to those kept in the colleges above mentioned, and that such special physical exercise shall be prescribed as shall be found necessary, including vocal culture. In connection with this professorship and the gymnasium there has been established a gymnasium council, consisting of the president of the university, professor of physical culture, and director of the gymnasium, professor of military science and tactics, and professor of physiology, and a member of the executive committee of

recently had the opportunity afforded them of visiting the university the impression it makes upon even the casual visitor :

"It may seem extravagant, but the situation of Cornell University is more magnificent than that of any other literary institution it has ever been my good fortune to visit. Its many noble buildings are planted in the midst of two hundred acres, on the crown of a hill that overlooks a wide basin holding a large rural village, and thousands of well-tilled acres and happy homes, and commanding a view of Cayuga Lake, making a prospect certainly unsurpassed for picturesque beauty and grandeur, with such a variety of charm that it can never satiate the eye; while to the lover of nature it must be from year to year a perpetual feast. In the midst of classic shades in these rolling grounds, on heights and in lovely nooks, are the residences of the president and professors, built in various styles of architecture, some of them perfect gems of art, and all of them such as persons of refined taste and culture must enjoy. . . . It was with admiring wonder that I surveyed the extent, variety, completeness, and perfection of the rooms, apparatus, illustrations, appliances and various helps by which the institution is equipped. Its large original endowment by Mr. Ezra Cornell, augmented by the gift from the United States of 990,000 acres of land, and afterwards by magnificent donations from individual friends, have enabled it to provide every thing that the pursuit of knowledge requires and money can buy

"A volume might be made in describing all that I saw in this interesting and instructive visit."

the board of trustees, to be selected by such committee. It is made the duty of this council to prepare plans for instruction and training of the students in hygiene and physical culture, and to regulate the use of the gymnasium. The council so appointed have recommended that exercise in the gymnasium be made optional for all students except those who upon examination by the professor of physical culture are found to imperatively need special exercise ; in such case special exercise is made compulsory.

Professor Wilder has been appointed during the past year Curator of the Natural History Cabinet.

The efficiency of the department of mathematics has been increased by the employment of Mr. James McMahon as instructor.

The department of mechanic arts has been made the special subject of consideration of a committee composed of the president, members of the board of trustees, and one of the graduates in that course, to be selected by the trustees. The graduate has not yet been selected, and the report of the committee has, of course, not yet been made.

The subject of the salary of professors has also received the close attention of the board during the present year, and the conclusion reached that the *general* scale of salaries should remain as they are for the present, and that the case of each professor should be considered separately. The principles to be considered in determining the question of increase of salary have been outlined in a general statute, which has met the approval of the entire board of trustees. A committee was also appointed at a recent meeting to consider the drafting and reporting of a statute relative to the retirement of professors incapacitated by age or other cause.

The method by which new departments shall be established and professors shall be selected has also been considered, resulting in the adoption of a general statute, by which the establishment of new departments in the university will devolve upon the faculty ; they to recommend, and the trustees to determine, and the same rule applies to the appointment of full professors. The removal of professors can only be effected by a vote of the full board of trustees.

NEW COLLECTIONS AND GIFTS.

One is the larger portion of the geological collection known as the Hartt collection, made by the late Professor Chas. Fred Hartt, and purchased by the university from his widow.

Another is a collection of plaster casts of sculptural and architectural ornaments from Lincoln Cathedral, England. This collection, which

it is believed will be of great use to the architectural department, was purchased and presented to the university by President White, the transportation charges from Liverpool being paid by the university.

Another is a collection of most rare and beautiful corals made by Mr. H. T. Woodman, of New-York, and which forms a truly valuable addition to the museum of natural history. This collection was purchased and presented to the university by President White, Hon. Henry W. Sage, and Hon. Douglass Boardman.

Another is the Colgate collection, which is a very full and beautiful collection of the specimens and products and means used by the Messrs. Colgate & Company, of New-York, in the great branch of manufacturing to which their establishment is devoted. This collection was presented by Messrs. Colgate to the university; the collection is to be placed in suitable cases in the laboratory building.

A highly-valued gift is that by the Hon. Chas. P. Daly, Chief Judge of the Court of Common Pleas in the city of New-York, of the privately-printed map annexed to the memorial presented to the States-General of the United Provinces in 1616 by the directors of New Netherland.

A full list of all other gifts to the university may be found in the schedules annexed to this report.

MEETINGS OF THE BOARD OF TRUSTEES.

During the present year the board of trustees have also by resolution increased the number of meetings of the full board of trustees; by a resolution proposed by the president, and unanimously passed, it was determined that at least two meetings of the full board should be held in Ithaca in each year, one at commencement and one as early as convenient after the beginning of the first term in the university year, and that such other meetings as might be found necessary might be held at the call of any seven trustees.

PRESIDENT'S AND PROFESSORS' REPORTS.

It was decided by the board of trustees that there should this year be printed and published with the president's report the reports of the deans of the various colleges in the university, or such abstracts thereof as might be made by them, and that the deans be requested to embody in such reports or abstracts a statement of the entire number of students in their departments, in each class, and the number of students under each instructor, and the number of hours each teacher is occupied.

The information presented in these reports cannot fail to be highly interesting and instructive to all persons interested in the university.

IV. METHODS IN WHICH THE ALUMNI CAN AID THE UNIVERSITY.

I. ANNUAL REPORTS BY ALUMNI TRUSTEES.

That the alumni may really aid the university, they should be informed where help is needed, and it is therefore to be hoped that the plan suggested by the executive committee of the alumni in the letter asking for this report, and printed on the first page herewith, will be adopted. If the last-elected trustee knows that a report will be required of him it will insure from him increased devotion to his duties.

The reports themselves, if rightly made, cannot fail to correct misconceptions concerning the university that from time to time may be prevalent among the alumni. They will also have a tendency, from their regular recurrence, to sustain and intensify that interest in the university which even now manifests itself among the alumni.*

Moreover, the plan proposed is not an innovation. It has precedent in its favor. Since 1868 there has been issued annually at Yale College a pamphlet containing information "respecting the late progress and present condition of the various departments of the university for the information of its graduates, friends and benefactors." This pamphlet has been edited and published by the executive committee of the alumni. The reasons given in 1868 for the appearance of such a document are well worthy of reproducing here, as accurately representing the reasons which justify the preparation and publication of reports similar to the present concerning this university by its alumni trustees.

The committee say: The executive committee of the society of alumni of Yale College have long been desirous of devising some method by which the graduates (whose representatives they are) might be made more intimately acquainted with the condition, the progress and the necessities of the university in all its various departments. The annual and triennial catalogues and the obituary records are the only periodical statements which hitherto have been made public by the college. The unofficial notices in the current newspapers and the oral announcements which are occasionally given at meetings of the graduates, awaken frequent inquiries for fuller information. Recently

* The plan was adopted at the alumni meeting at which this report was read.

the formation of Yale associations in Boston, Chicago, St. Louis, Philadelphia and New-York has made it more important than ever before that our Alma mater should be in confidential relation with her sons, and that special efforts should be put forth to keep the graduates who dwell without the walls of the college familiar with all which is passing within.*

The proposed plan finds a further precedent in the case of Williams College, in which the associated alumni are represented in the course of instruction by a committee of their number, whose office it is, among other things, as defined by the catalogue, "to make an annual report to the alumni concerning the methods of instruction and discipline of the college, and the progress and wants of the institution."†

The executive committee of this university, I understand, also recommended that the annual dues of membership in the alumni association be made one dollar, and that the dues be required to be paid as a condition precedent to the right of voting for alumni trustee. It is to be hoped that this suggestion will be adopted, as it will undoubtedly lead to the establishment of a fund large enough not only to defray the expense of publishing the proposed annual report, but also to form the nucleus of a future alumni scholarship or fellowship.‡

STATE STUDENTS.

To the consideration of this subject I invite the most earnest attention of the alumni, especially of those resident in this State, as one in which their interest in the university may freely outflow with the most beneficial results. By the charter of the university this State has provided for its citizens the magnificent legacy of 512 scholarships in this university of a remission of all tuition on the part of the holders. *This number has never yet been half filled.* It is, however, encouraging to note that the number of State students is, upon the whole, steadily increasing—for example, in 1868-'69, there were 60; in 1869-'70, 100; in 1870-'71, 119; in 1871-'72, 133; in 1872-'73, 109; in 1873-'74, 101; in 1874-'75, 115; in 1875-'76, 120; in 1876-'77, 144; in 1877-'78, 141; in 1878-'79, 144; in 1879-'80,

* "Yale College in 1868," p. 1.

† Catalogue of Williams College, 1883-'84, p. 27.

‡ This suggestion was adopted so far as the amount of the dues was concerned, but it was not deemed best to make the payment of the dues a condition precedent to the right of voting. It was believed they would be quite largely paid without such condition.

146; in 1880-'81, 150; in 1881-'82, 148; in 1882-'83, 156; in 1883-'84, 176.

Since the university has opened its doors, sixteen years ago, New-York city, possessing each year 21 scholarships, has sent but two State students, one in 1874, one in 1879! The authorities in New-York are all in favor of Columbia, and are opposed to holding examinations and advertising. In the case of the two students who came it was not until they had flatly refused to attend Columbia that the examiners would entertain any proposition looking toward an examination. At last they gave the certificates, but declined holding examinations. Here, certainly, is a great field for missionary labor on the part of the largest Cornell Association in existence, especially in view of the fact that, as the New-York Association has each year been growing stronger, the number of students from the city has gradually been growing less, until within the last few years the number of students furnished by the great metropolis of the State becomes utterly insignificant in comparison with that furnished by even Ithaca, "an isolated inland village."

It will not do to say that the residents of New-York City, having Columbia, and a well-conducted high school, known as the College of the City of New-York, where tuition is free, within its limits, prefer to keep their sons and daughters at home. The answer is, they do *not*; and any one who will examine the catalogues of Harvard, Yale, Williams, Amherst, Princeton, Johns Hopkins, and even Hamilton and Union, can be convinced of the truth of the assertion. The same remark applies to the State at large. Indeed, President Eliot, in his last report, calls attention to the remarkable increase of students from the Middle States which has taken place at Harvard during the last few years, more than *one-fifth* of the whole number of college students coming from the Middle States, and he points out the fact that *this is due to the influence of the alumni's co-operation in inducing students, many of them not sons or kinsmen of the alumni, to attend Harvard.**

No; the general association of the alumni must not, in this matter, either delay or neglect, and the same remark is equally true of the other associations through the State. The best investment any institution can make is in young men, and the objective point on the part of the alumni should be — if we believe in the principles inculcated at Cornell, and that the university is doing its best for the new and the higher education — to induce as many young men to attend the insti-

* President Eliot's Report 1882-'83, pp. 10, 11. And the same is true of Yale. See Yale College in 1881, p. 9.

tution as possible. Here it is, indeed, where the alumni can aid the institution, and I venture to suggest one plan by which this may be effected.

Let the members of the central executive committee be increased by such members as are willing to serve upon it; let such committee correspond with the Cornell associations in this State with a view of having such associations appoint executive committees, who shall arrange to have some member of the committee or association present at the examinations held in each assembly district. Let such persons see to it that the examination has been properly advertised and that it is properly conducted, and, most important of all, let the extra candidates who apply be seen, and induced to apply, and arrangements made by which, if they pass their examinations well, their tuition may be remitted to the number of the scholarships not filled.

Let the executive committee in Ithaca — and, since in New-York the number of members is the greatest and the apparent zeal the most intense, let the New-York association also — put themselves in communication with the various teachers throughout the State who are Cornell graduates, and ascertain what efforts are being put forth by them to induce students to come to Cornell. Let committees be appointed to visit the various high schools, who may bring before the students the advantages of our Alma mater. Other universities have the sons and grandsons of their graduates to crowd their halls — Cornell's graduates must endeavor to supply this deficiency in their own case by the grandsons and sons of others.

That my estimate of the importance of this is not fanciful, let me say that a few months ago I sent a circular to every school-commissioner of the State, inclosing postal-card for reply, and received replies in most instances. The opportunity of gaining students for Cornell, and the vast amount of good work which may be performed by the alumni, if they will show as much zeal as I have no doubt they will, the replies I received show.

The commissioner from one county writes :

(1.) "I usually have several applicants for the Cornell scholarship, the most of them thoroughly good men. This year I have already heard of *three* who intend trying, two of whom, if unsuccessful, will enter other colleges. Others whom I know would try the examination but for the fact that the scholarship is gone if a certain man enters the arena." (2.) One of the commissioners from Erie County writes : "A young man of this place will attend, *if properly encouraged*, next fall." (3.) The commissioner from Syracuse writes : "There have

been from *two* to *three* applicants from each district to compete ; there are three districts in this county and so *from three to six must be disappointed each year.*" (4.) From Cayuga County the commissioner writes : "At our examination for the Cornell scholarship last year, and the year before, *there were several competitors. I am sure of two or three more for the present year.*" (5.) The commissioner in Little Falls, Herkimer County, writes : "There are usually *from four to six competitors* at the Cornell examinations." (6.) The commissioner from Dexter, Jefferson County, states that *six applied last year* at the last examination. (7.) From La Sargerville, Jefferson County, the commissioner writes that on the last examination *eight* applied. (8.) The commissioner from Lansingburgh, Rensselaer County, writes : "In all, *five have applied, more than I could send. The curious thing is that none of those disappointed applied the second time but started elsewhere.*" (9.) The commissioner from Earlville, Madison County, writes that last year there were *two* candidates. (10.) The commissioners from Dutchess County write that they generally have from *four to six* competitors. At Clifton Springs, Ontario County, *two* have already applied for the scholarship. At Victor, Ontario County, *three* have already applied. In Oswego, Oswego County, *six*. In Downs-ville, Delaware County, "*quite a number.*" In Hobart, in Delaware County, "*several.*" In West Fulton, Schoharie County, "*three or four* bright, intelligent young men will compete for the scholarship." (11.) The commissioner from Caledonia, Livingstone County, writes that in 1881 there were none that applied, in 1882 one, and in 1883 *four*. The commissioner from Cedar Lake, Herkimer County, writes that in the last three years there have been *eight* applicants.

From many counties in the State, however, the reports are not so encouraging, and they show that there is a great field open for graduates to serve their Alma mater, if they so desire. Thus the commissioners from Yates County report that but one applicant has appeared at each examination held by them. The report from Essex County is to the same effect. Columbia County reports but one applicant in two years. From Westchester County, in the third district, there were no applicants during the past two years ; in the first and second, one applicant each. In Schenectady County *no examination has ever been held*, so far as the commissioners know. In Schoharie County only those appointed have applied, with one exception. In Erie County *but two persons have applied in three years*. In Montgomery County, for the last two years, there have been but two applicants. The report from Putnam County is to the same effect, the commissioner

adding: "There would, no doubt, have been more applicants *had my predecessors advertised the examinations*. Many did not know of Cornell University and its noble offer until I advertised for applicants." Albany County, for the past three years, has furnished but one candidate each year. The commissioners do not say what means they have taken to induce students to apply. The applicants from Dutchess County have, during the past two years, just filled its quota. Two years ago Wayne County had six candidates, last year three, and of all of these the commissioners write: "The applicants have, in all cases, been worthy young men and women of more than ordinary ability and of good attainments, struggling in poverty to obtain an education. It has been a source of regret to us, since the quotas from many counties were not filled, that we, who had so many applicants, could not appoint to fill the vacancies." In Orleans County but one extra candidate has appeared during the past three years. In Rensselaer County there has been no applicant of late years, though notice of the examination has been given. The vicinity of Williams and Union Colleges, the commissioners think, may account for the lack of applicants. In Niagara County the commissioners write that there has seldom been much competition and sometimes no applicants. In Cayuga County "there has rarely been more than one applicant in each district and sometimes none." In Cattaraugus County, during the past five years, the examinations have been held; at two examinations there have been three applicants; at one two, and at one one; two appointments can be made from the county. In Otsego County, for the last three years, one applicant in each assembly district has applied and been awarded the scholarship. The record of Queens County is quite discouraging, and that county presents a great field for missionary labor on the part of the New-York alumni.

One commissioner writes that during the past two years he has had printed, about the first of July, in every newspaper in his district, notices of the time and place of holding a public competitive examination of candidates, but to no purpose. In every school district he has visited he has set forth the advantages of the proffered opportunity, but no student has ever presented himself. The reports of the other commissioners from Queen's County are to the same effect.

The commissioners from New-York City and Brooklyn did not even deign to return to me the postal card I sent them to reply upon.

In Washington County no extra applicants have presented themselves, and some years the quota has not been filled. In Fulton County the commissioners write that there have always been from two

to three applicants until last year, when there were none. "The complaint of our boys has been 'it costs too much.'" In Schuyler County, during the last three years, but one candidate each year was present. In Clinton County, during the past three years, but one has applied. In Lewis County but two have applied in three years. In Franklin County "but one examination has been held during the past three years, there being but one applicant for the place during any year except one." In Sullivan County, in 1883, there was one candidate; in 1882, none; in 1881, *two*. The commissioner from the first district says that he has advertised with indifferent success. The commissioners from Alleghany County write that it has been "difficult to keep the quota filled." "Lightness of funds" is one reason. In Tompkins County, in 1881, there were three competitors; in 1882, three; in 1883, four.

The commissioners regret that the law cannot be so changed that all deserving scholars can avail themselves, for in the past those whose means were the smallest, though passing creditable examinations, were compelled to wait years, because those whose means were ample surpassed them slightly in scholarship.

One of the commissioners writes that he has heard of several instances of traffic in scholarships, in this wise: A student, after receiving a scholarship, decides not to continue his course, and offers it to the competitor next on the list for a consideration. This, of course, should not be tolerated.

It will be seen, however, from the figures given above, that in spite of these discouraging features, and notwithstanding the total indifference with which the subject is treated in the great metropolis, which should send a larger number of students than any other one place in the State, the number has been steadily increasing.

It is also apparent that the real purpose of the law is not being carried out under its present provisions. The intention was, no doubt, that 512 students from New-York *State* should receive tuition free, if found worthy. Now, some counties present seven and eight, of whom, if all worthy, one or two only can receive scholarships. Other counties present none at all. This is the way in which it struck Mr. Newman, one of the school commissioners of Onondaga County, who writes: "Some years we have *five* first-rate competitors. Why can't Cornell follow the Normal School law precedent and receive any number of duly qualified pupils up to the whole 512, from *any* part of the State! If 512 are all from one-fourth or one-half the State, what harm? Just combine, change the law, and crowd the college. My school district

sends large numbers to Courtland since the number restriction was removed. Why can't Cornell do the same by change of law?" Why not, indeed? I ventured to suggest to the president the importance of the subject, and the heartiness with which any suggestion of the alumni trustees is received was evinced by his immediately issuing a circular on the subject, which cannot fail to do some good.

At the meeting of the trustees in May the subject was fully discussed, and a committee appointed to consider the best method of remedying what seemed a most important defect in the law. By next year it is hoped the matter may be remedied, and such full and hearty co-operation received from the alumni in the various counties of the State that the entire 512 scholarships may be filled.

It may be interesting, in this connection, to note from what colleges the principals of the various high schools in the State are, as explaining in a measure *why* they do not supply Cornell with a greater number of students. Of the different principals there are graduates of Hamilton, 27; Cornell, 15; Union, 15; Syracuse, 13; Amherst, 10; Rochester, 10; Williams and Yale, 7; Madison, 6; Dartmouth, Harvard, Alfred and Brown, 4; Bowdoin and Lafayette, 3; Oberlin, Vermont, Rutgers, Hobart, 2; St. Lawrence, Columbia, Princeton, Michigan, and University of City of New-York, 1.*

ALUMNI SCHOLARSHIPS.

The alumni are not rich, but many of them are now in a position where they could, even with the limited means at their disposal, be of material assistance to the university. I am sure if the alumni could see many of the pitiful appeals for aid that come to the president from worthy young men who desire a small advance to enable them to obtain a collegiate education, they would feel that a few dollars contributed by them to the loan fund of the university would indeed be placing their money where it would do the most good. During the present year the number of such appeals has been very great, and some of them are such as deserve the most attentive consideration. Let me read you a few extracts from some of the letters I have seen:

1. "I still desire to enter the university in the course in . . . and, with the help of a little pecuniary assistance, could pursue it with success."
2. "I desire very much to enter college next fall in the course of

* Compiled from the last report of the Regents.

Science and Letters. A little aid would enable me successfully to do so."

3. "My greatest desire is to enter Cornell University in the course of Civil Engineering. I accept with gratitude your kind offer of pecuniary assistance, as my means are very limited. I will have, by September, \$250 of my own saving, so that, with the aid of a scholarship, and what I could earn during vacation, I would undertake the course."

4. "I entered the university last year in the course in . . . but I shall now be obliged to work a year before going back, in order to obtain means to pursue my course."

5. "I intended to take the Medical Preparatory course, but shall be unable to attend next year, on account of my lack of funds. A little aid would enable me to do so. I am very anxious to finish my course."

The loan fund of the university is but about \$1,500. It is distributed with the utmost care, but even then it is utterly inadequate to supply the demands made upon it.

Is it not possible that some of our larger alumni associations will undertake to aid the university in this regard?

I would also suggest in this connection that it is entirely possible for the alumni associations, by a little effort, to establish, each of them, a small scholarship, or, if the amount required be too large, then to establish a prize in any one of the different departments of the university.

Many prizes were given at first by the university. They were first announced in the Register of 1868-'69, page 39. They continued until 1876-'77, at which time, with the exception of the Woodford and Horace White prizes, they entirely disappeared.

Could not the alumni do something for the university in this regard?

If the plan outlined in this report of the alumni associations undertaking the care of the examinations for the State scholarships be deemed practicable, I suggest that the plan already in vogue at Dartmouth College be instituted at this university; that is this: Upon the last page of the Dartmouth Catalogue is printed the names of the Secretaries and names of the Executive Committees of the alumni associations in the various cities throughout the Union.

This enables the several associations to correspond readily with each other, and it enables the university to readily correspond with the

societies. In this way a close union is established between the university and its alumni.*

I think that the university, if the alumni requested it, would cheerfully acquiesce in this project being carried out in the Cornell Register.

ALUMNI PUBLICATIONS.

I would also suggest that the alumni request a separate shelf be reserved in the library for publications of the alumni.

It could be seen then at a glance what progress the university was making in permanent literature, and I have no doubt that the record, in a few years, would be particularly gratifying.†

CONCLUSION.

In conclusion, let me say that the foregoing report has during the last few months occupied much of my time and attention and only those who attempt a similar task can have any idea of the labor involved. I have endeavored, in a spirit of the utmost candor, to set down my impressions concerning the university, without extenuating aught, or setting down aught in malice. If there are mistakes in the report I should be glad to know it. The subject has been approached in an earnest and thoughtful spirit and the conclusions are presented with the facts on which they rest, and in that spirit and method the report is submitted to the alumni for their candid consideration.

The trust confided to the alumni of this university is a great one. It is possible that, in reflecting upon the greatness of its endowment, it may seem that the university has not done as well as it ought. It will always seem so. It will be a sad day for the university when its graduates will feel that it can be made no better. It is possible that the feeling may prevail that there are not so many distinguished men within its walls as we might wish. Let us labor heartily, and with one accord then, that there may be more. It is possible that we may feel that each of the departments needs more strength than it has. Let us see if, by our own personal endeavors and assistance, that strength cannot be increased.

Let us never forget that the university is our Alma mater, our "Benignant Mother"; and, if we realize truly the nature of this relationship, with all its pleasant associations and tender memories, surely,

* This suggestion was adopted at the annual meeting in Ithaca.

† This suggestion was adopted at the annual meeting at Ithaca.

it seems to me, it will make us most delicate in our criticism, most zealous in our support.

I feel that I cannot do better than to close this report with the words used at the conclusion of the petition of the New-York Association to the trustees of the university in 1881, signed by its president, Mr. Francis W. Halsey:

“In conclusion, we congratulate the university upon the improvements in its prospects within the year past. It seems to us that now — when the prosperity of our Alma mater is such that no adverse criticism of her management is mingled with the requests of her alumni — is a peculiarly fitting time to so order matters that she may rest secure.”

JAMES FRASER GLUCK.

BUFFALO, June 15, 1884.



· · · APPENDIX. · · ·



TABLE I.

**SCHEDULES SHOWING COMPARATIVE STANDING OF ENGINEERING DEPARTMENT AT CORNELL WITH
SAME DEPARTMENT IN OTHER COLLEGES.**

The following tables, prepared after a careful examination of many catalogues, are very instructive as to the status and progress of this most important department.

Table I. indicates that the course at Cornell is not inferior in matter or time to any other—hearing in mind that many small colleges give the full degree of C. E. on imperfect courses, while at Cornell is given the degree of B. C. E. inferior to none in the country. The C. E. degree on five years' study, or four years in course and two of additional practice with examination and thesis.

Table II. indicates that Cornell has the largest technical force, except Troy, in the country. This is due to the fact that while counting the Troy instructors, they were charged to the column "Engineering" whenever any one of them taught any strictly technical subject, though many of them teach in addition "General Science." The last column of this table is very instructive, for it shows with fair accuracy the actual average number of students allotted to each instructor to teach.

INSTITUTION.	NO. OF STUDENTS IN			NO. OF INSTRUCTORS TEACHING				Ratio of Students to Instructor.
	Civil Engineering. Military.	Other Techni- cal Courses.	Humanities.	Total No. of Students.	Engineering.	(General Science.	Humanities	
Rensselaer Institute, Troy, N. Y., . . .	174	.	.	174	8	4	3	11.60
Sheffield (Yale),	Indeterminate.	Indeterminate.	.	188	1	16	6	8.17
Massachusetts Institute, Technical . .	36	407	.	443	3	43	5	8.68
Towne (University Pennsylvania), . .	22	217	.	239	2	13	12	8.83
CORNELL UNIVERSITY,	77	327	57	461	5	26	20	9.40
School Mines (Columbia),	38	215	0	253	3	21	3	9.37
University Cincinnati,	8	89	65	162	2	6	7	10.80
Lehigh University,	57	99	31	187	2	13	7	8.50
University of California,	14	36	165	215	2	16	14	7.16
University of Wisconsin,	14	81	112	207	2	13	14	7.70
University of Michigan,	57	172	312	539	2	20	19	12.92
West Point Military Academy,	174 Military.	.	.	174	3	30	14	3.70

The above is obtained from the study of 126 institutions, whose registers made the comparisons possible. It excludes the students and instructors of the schools of Medicine, Law and Divinity. It includes the foremost schools of the country.

TABLE II.

SUBJECTS.	NUMBER OF TERMS GIVEN PER SUBJECT BY EACH INSTITUTION.				
	R. P. Inst., Troy, N.Y.	Mass. Inst., Technical.	Sheffield, Yale.	Towne, Univ. Pa.	Eng. Dep't, Cornell.
Algebra,	1	1	1	1	1
Geometry,	1	1	1	1	2
Trigonometry,	1	1	1	1	1
Analytical Geometry,	1	1	1	1	1
Calculus,	1	2	1	1	2
Descriptive Geometry, etc.,	2	1	2	2	4
Mechanics,	2	3	2	1	3
Bridge Stresses,	1	1	1	1	2
Hydraulics,	1	1	1	2	2
Classics,	1	1	.	1	1
Physics,	4	3	1	1	5
Chemistry,	2	2	1	1	2
Hygiene, . . . . .	.	.	.	.	1
Mineral Metallurgy,	$\frac{1}{3}$	1	1	1	3
Geology,	$\frac{2}{3}$	2	1	1	1
Free-hand Drawing,	1	1	1	.	2
Topographical Drawing,	2	3	1	1	1
Lineal Drawing,	1	1	1	1	1
Mechanical Drawing,	1	1	1	1	.
Lettering, . . . . .	.	.	.	.	1
Detail Drawing,	2	.	.	1	1
Colored Topography, . . . . .	.	.	.	1	2
French,	2	2	1	1	5
German, . . . . .	.	4	1	1	5
Spanish, . . . . .	.	.	.	.	5
Rhetorical Essays,	1	2	1	1	15
Land Surveying,	1	1	1	1	1
Railroad Surveying,	1	1	1	1	1
Hydrography,	1	.	.	1	2
Higher Geodesy,	1	1	.	1	2
Astronomy,	2	1	1	1	2
Stereotomy,	1	1	1	1	1
Architecture, . . . . .	.	.	.	3	2
Stone-cutting,	1	.	1	1	1
Civil Engineering,	1	1	1	2	2
Engineering Economy,	1	1	.	.	1
Military School, etc., . . . . .	.	2	.	.	5
History, . . . . .	.	4	.	.	.
Political Economy,	1	.	.	.	1
Religion, . . . . .	.	.	.	.	.
Riparian Rights, . . . . .	.	.	.	.	1
Law of Contracts, . . . . .	.	.	.	.	1
Bridge Details, . . . . .	.	.	.	.	.
River and Harbor Imp.,	1	.	.	.	1
Advanced Astronomy, . . . . .	.	.	.	.	1
Technical Reading, . . . . .	.	.	.	.	3
Projects, Designs, . . . . .	.	.	.	.	3
Sanitary Engineering,	1	.	.	.	1
Locomotives,	1	1	.	.	1
Specifications,	1	.	.	.	1
Logic, Psychology, . . . . .	.	.	.	1	.
Botany,	1	.	1	1	1

The above is only approximate: for in some instances the time given to each study is not stated. It serves, however, a good purpose for comparison.

NUMBER OF STUDENTS AND OF GRADUATES BY YEARS AND COURSES.

GRADUATES.

	'68-'69	'69-'70	'70-'71	'71-'72	'72-'73	'73-'74	'74-'75	'75-'76	'76-'77	'77-'78	'78-'79	'79-'80	'80-'81	'81-'82	'82-'83	'83-'84	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	2d deg.		
Post-Grad's,	..	..	..	2 ¹	6 ¹ 2	11 ¹ 2	16 ¹ 2	13 ¹ 2	23 ¹ 2	30 ¹ 2	15 ¹	7 ¹	14 ¹	22 ¹	36 ¹	21 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Seniors,	..	..	..	5 ¹	10 ¹	88 ¹ 2	63 ¹	82 ¹ 2	84 ¹ 2	77 ¹ 2	21 ¹	9 ¹	89 ¹	59 ¹	66 ¹	66 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Juniors,	9 ¹	38 ¹	43 ¹	70 ¹	98 ¹ 102 ¹	124 ¹ 95 ¹	88 ¹	109 ¹ 2	90 ¹ 2	100 ¹ 2	83 ¹	118 ¹	89 ¹	77 ¹	71 ¹	72 ¹	70 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sophomores,	23 ¹	23 ¹	124 ¹	159 ¹	121 ¹ 125 ¹	122 ¹ 125 ¹	96 ¹	109 ¹ 2	141 ¹ 2	165 ¹ 2	138 ¹ 118 ¹	120 ¹ 2	95 ¹	88 ¹	68 ¹	113 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Freshmen,	195 ¹	197 ¹	119 ¹	169 ¹	127 ¹	129 ¹	109 ¹	135 ¹ 2	201 ¹ 2	223 ¹	145 ¹	127 ¹	124 ¹	108 ¹	122 ¹	176 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total,	413 ¹	286 ¹	266 ¹	218 ¹	198 ¹	200 ¹	186 ¹	202 ¹	219 ¹	232 ¹	157 ¹	124 ¹	124 ¹	108 ¹	122 ¹	176 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Optional,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Arts,	40 ¹	45 ¹	41 ¹	30 ¹	33 ¹	27 ¹	33 ¹	43 ¹	33 ¹	46 ¹ 2	60 ¹ 2	70 ¹	52 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Agriculture,	30 ¹	22 ¹	†	15 ¹	16 ¹	7 ¹	17 ¹	17 ¹	20 ¹	42 ¹	39 ¹	37 ¹	26 ¹	20 ¹	19 ¹	16 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chemistry,	10 ¹	..	..	..	20 ¹	29 ¹	29 ¹	32 ¹	19 ¹	16 ¹	10 ¹	8 ¹	8 ¹	16 ¹	20 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Engineering,	39 ¹ 2	7 ¹	†	9 ¹	94 ¹ 95 ¹ 2	87 ¹	82 ¹	82 ¹	70 ¹	58 ¹ 2	42 ¹	39 ¹	38 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
History, etc.,	..	76 ¹	†	92 ¹	97 ¹	..	..	..	..	..	43 ¹	12 ¹	8 ¹	17 ¹	31 ¹	16 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Elect. Engin.,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Literature,	..	..	..	..	28 ¹	31 ¹	25 ¹	48 ¹	51 ¹	36 ¹	39 ¹	26 ¹	25 ¹	21 ¹	26 ¹	25 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mech. Arts,	27 ¹	..	..	..	24 ¹	38 ¹	49 ¹	56 ¹	54 ¹	44 ¹	33 ¹	30 ¹	33 ¹	31 ¹	29 ¹	35 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mathematics,	..	..	..	..	..	..	..	..	..	2 ¹	2 ¹	8 ¹	6 ¹	6 ¹	2 ¹	1 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Med. Prepar'y,	28 ¹	44 ¹	37 ¹	25 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Philosophy,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Optional,	81 ¹	156 ¹	158 ¹	141 ¹	131 ¹	133 ¹	94 ¹	132 ¹	55 ¹	62 ¹	38 ¹	36 ¹	30 ¹	29 ¹	35 ¹	63 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nat. History,	..	..	..	..	11 ¹	17 ¹	11 ¹	17 ¹	20 ¹	20 ¹	15 ¹	9 ¹	7 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Science,	143 ¹	206 ¹	228 ¹	206 ¹	153 ¹	122 ¹	136 ¹	200 ¹	147 ¹	152 ¹	153 ¹	142 ¹	118 ¹	108 ¹	111 ¹	113 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Veter. Science,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total,	412 ¹	563 ¹	609 ¹	595 ¹	525 ¹	509 ¹	521 ¹	542 ¹	561 ¹	529 ¹	476 ¹	459 ¹	399 ¹	384 ¹	407 ¹	461 ¹	8	23	40	67	93	63	52	63	69	66	67	70	82	63	65	—897	..	
Optional,	413 ¹	563 ¹	609 ¹	595 ¹	537 ¹	509 ¹	532 ¹	542 ¹	561 ¹	529 ¹	476 ¹	459 ¹	399 ¹	384 ¹	407 ¹	461 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Arts,	40 ¹	45 ¹	41 ¹	30 ¹	33 ¹	27 ¹	33 ¹	43 ¹	33 ¹	46 ¹ 2	60 ¹ 2	70 ¹	52 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Agriculture,	30 ¹	22 ¹	†	15 ¹	16 ¹	7 ¹	17 ¹	17 ¹	20 ¹	42 ¹	39 ¹	37 ¹	26 ¹	20 ¹	19 ¹	16 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chemistry,	10 ¹	..	..	..	20 ¹	29 ¹	29 ¹	32 ¹	19 ¹	16 ¹	10 ¹	8 ¹	8 ¹	16 ¹	20 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Engineering,	39 ¹ 2	7 ¹	†	9 ¹	94 ¹ 95 ¹ 2	87 ¹	82 ¹	82 ¹	70 ¹	58 ¹ 2	42 ¹	39 ¹	38 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
History, etc.,	..	76 ¹	†	92 ¹	97 ¹	..	..	..	..	..	43 ¹	12 ¹	8 ¹	17 ¹	31 ¹	16 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Elect. Engin.,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Literature,	..	..	..	..	28 ¹	31 ¹	25 ¹	48 ¹	51 ¹	36 ¹	39 ¹	26 ¹	25 ¹	21 ¹	26 ¹	25 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mech. Arts,	27 ¹	..	..	..	24 ¹	38 ¹	49 ¹	56 ¹	54 ¹	44 ¹	33 ¹	30 ¹	33 ¹	31 ¹	29 ¹	35 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mathematics,	..	..	..	..	..	..	..	..	..	2 ¹	2 ¹	8 ¹	6 ¹	6 ¹	2 ¹	1 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Med. Prepar'y,	28 ¹	44 ¹	37 ¹	25 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Philosophy,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Optional,	81 ¹	156 ¹	158 ¹	141 ¹	131 ¹	133 ¹	94 ¹	132 ¹	55 ¹	62 ¹	38 ¹	36 ¹	30 ¹	29 ¹	35 ¹	63 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nat. History,	11 ¹	17 ¹	11 ¹	17 ¹	20 ¹	20 ¹	15 ¹	9 ¹	7 ¹
Science,	143 ¹	206 ¹	228 ¹	206 ¹	153 ¹	122 ¹	136 ¹	200 ¹	147 ¹	152 ¹	153 ¹	142 ¹	118 ¹	108 ¹	111 ¹	113 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Veter. Science,
Total,	412 ¹	563 ¹	609 ¹	595 ¹	525 ¹	509 ¹	521 ¹	542 ¹	561 ¹	529 ¹	476 ¹	459 ¹	399 ¹	384 ¹	407 ¹	461 ¹	8	23	40	67	93	63	52	63	69	66	67	70	82	63	65	—897	..	
Optional,	413 ¹	563 ¹	609 ¹	595 ¹	537 ¹	509 ¹	532 ¹	542 ¹	561 ¹	529 ¹	476 ¹	459 ¹	399 ¹	384 ¹	407 ¹	461 ¹	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Arts,	40 ¹	45 ¹	41 ¹	30 ¹																														

PLACES FROM WHICH STUDENTS HAVE COME.

(Compiled from the Registers.)

UNITED STATES.	'68-'69	'69-'70	'70-'71	'71-'72	'72-'73	'73-'74	'74-'75	'75-'76	'76-'77	'77-'78	'78-'79	'79-'80	'80-'81	'81-'82	'82-'83	'83-'84
Alabama, . . .	.	.	.	.	1	.	.	.	.	.	.	.	.	.	1	1
Arkansas, . . .	.	.	.	.	1	.	.	.	.	1	.	.	.	.	.	.
California, . . .	2	3	4	4	1	2	5	4	2	3	2	4	4	4	3	4
Colorado, . . .	.	.	.	.	.	1	3	4	2	1	2	1	.	.	2	3
Connecticut, . . .	2	12	8	9	9	2	5	5	6	6	5	4	4	4	3	3
Dakota, . . .	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
District Columbia, . . .	1	5	5	4	5	4	4	4	7	6	5	4	5	4	3	5
Delaware, . . .	2	2	6	6	8	7	8	3	3	3	1	.	.	1	3	2
Florida, . . .	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Georgia, . . .	1	.	.	2	.	1	1	.	.	1	2	1	3	.	.	.
Illinois, . . .	12	20	18	22	23	19	24	18	13	22	25	14	18	17	24	22
Indiana, . . .	2	.	1	5	8	9	12	15	11	10	5	8	4	6	4	6
Iowa, . . .	.	2	5	8	5	5	6	9	8	7	9	6	1	2	2	3
Kansas, . . .	1	2	3	1	1	1	1	.	1	1	1	2	.	.	1	.
Kentucky, . . .	1	.	1	.	.	2	4	.	2	5	1	2	.	.	.	.
Louisiana, . . .	1	2	1	.	1	.	1	1	3	2	1	2	2	1	1	1
Maine, . . .	2	3	4	7	5	3	2	2	2	4	3	1	1	1	1	1
Maryland, . . .	3	5	5	4	4	2	.	3	3	.	.	.	.	1	1	1
Massachusetts, . . .	5	12	21	20	12	9	10	13	13	10	14	12	8	9	9	9
Michigan, . . .	6	10	11	12	9	8	8	11	9	6	3	5	3	2	2	3
Minnesota, . . .	1	1	2	2	1	1	1	4	4	4	6	3	1	2	2	2
Mississippi, . . .	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.
Missouri, . . .	3	7	6	4	4	8	7	5	4	4	1	2	2	2	5	4
Nebraska, . . .	.	.	.	.	.	.	2	3	4	4	3	1	.	.	1	.
Nevada, . . .	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.
New Hampshire, . . .	2	5	11	9	11	9	6	3	2	2	4	2	2	.	1	.
New Jersey, . . .	13	20	15	18	18	14	16	14	15	10	8	9	6	7	6	6
North Carolina, . . .	.	1	1	1	3	3	3	1	1	.	.	.	.	.	.	.
Ohio, . . .	15	22	26	47	38	55	40	49	40	32	25	27	20	16	12	20
Oregon, . . .	.	.	1	1	.	.	.	.	.	.	.	.	.	.	.	.
Pennsylvania, . . .	17	26	34	34	31	34	31	32	21	22	25	26	26	23	15	29
Rhode Island, . . .	4	.	.	.	1	2	3	3	3	1	1	.	.	1	.	.
South Carolina, . . .	.	.	.	2	2	1	.	1	1	1	1	1	1	.	.	.
Tennessee, . . .	.	.	3	5	4	5	1	1	.	.	.	.	.	.	.	1
Texas, . . .	.	.	2	2	1	1	3	2	1	1	1	.	1	.	1	1
Utah, . . .	.	.	.	.	.	.	.	2	2	.	.	1	.	2	2	4
Vermont, . . .	.	7	8	8	4	5	7	9	8	5	5	.	.	1	.	.
Virginia, . . .	1	2	2	2	1	1	.	2	2	1	1	.	.	.	.	.
Washington, . . .	.	.	.	.	.	1	1	1	1	1	.	.	1	1	.	.
West Virginia, . . .	2	1	1	2	1	1	3	3	1	2	1	.	.	.	.	.
Wisconsin, . . .	4	5	4	6	4	7	8	13	10	10	10	6	2	3	1	4

PLACES FROM WHICH STUDENTS HAVE COME.

FOREIGN COUNTRIES.	'68-'69	'69-'70	'70-'71	'71-'72	'72-'73	'73-'74	'74-'75	'75-'76	'76-'77	'77-'78	'78-'79	'79-'80	'80-'81	'81-'82	'82-'83	'83-'84
Canada,	2	5	1	1	4	6	9	2	1	2	2	.	1	1	1
Brazil,	1	.	.	1	4	13	18	16	13	9	2	1	3	4	5	5
Bermuda,	1	.	1	1	.	.	1	1	.	.	.	.	.	.	.
Nova Scotia, . .	1	4	2	3	2	1	1	.	.	.	.	.	.	.	.	.
New Brunswick,	1	.	.	.	.	.	.	.	.	.	.	.	.
Sandwich Isles, .	.	.	1	1	.	.	.	.	.	.	.	.	.	.	.	.
Hayti,	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Guatemala,	1	1	.	.
Nicaragua,	1
Cuba,	1	2	1	.	.	.	.	.	.	.	.
Mexico,	1	1	.	.	.	1	.	.	.	.	.
Africa,	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.
Japan,	1	.	1	1	1	2	2	.	2	.	.	.	1	1
England,	3	2	3	.	.	.	.	1	1	.	.	1	.	.	1	1
Hungary,	1	.	.	.	.	.	.	.	.	.	.	.	.	.
Bohemia,	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Servia,	1	1	1	.	.	.	.	.	.	.	.	.	.	.
Russia,	1	.	.	.	1	2	.	.	.	1	1	.	.	.	.	1
Sweden,	1	.	.	.	.	.	.	.	.	.	.	.	.	.
Germany,	1	1	.	.	.	.	.	.	.	.	.	.
Spain,	1
Italy,	2	1	1	.	.	.	.
Asia Minor,	1	1	1	.	.	.	.	.	.
Australia,	1

	'68-'69	'69-'70	'70-'71	'71-'72	'72-'73	'73-'74	'74-'75	'75-'76	'76-'77	'77-'78	'78-'79	'79-'80	'80-'81	'81-'82	'82-'83	'83-'84
Total Number, .	412	563	609	595	525	509	521	529	561	529	476	459	399	384	407	461
New-York State, .	279	376	337	314	272	238	245	264	317	308	290	293	265	259	254	304
New-York City, .	25	.	28	25	14	16	19	23	30	21	17	9	10	8	9	14
Buffalo,	6	.	6	4	4	3	3	5	5	5	7	7	7	7	5	7
Syracuse,	9	.	7	7	4	2	8	10	12	9	6	8	6	5	4	6
Ithaca,	26	.	24	25	34	32	33	38	52	42	37	40	32	31	27	29

SCHEDULE OF STUDENTS PURSUING THE VARIOUS STUDIES OF
THE UNIVERSITY CURRICULUM DURING THE
ACADEMIC YEAR, 1882-'83.

1. MORAL AND INTELLECTUAL PHILOSOPHY.

Dr. Wilson, Instructor; Seniors, 41.

NOTE.—*Moral Philosophy* alternates with *History of Philosophy*, and this was the year for the latter. *Psychology* is given a separate head below. *Philosophy of History* will be classed with *History*. (See below.)

2. NORTH EUROPEAN LANGUAGES.

German — H. S. White, Instructor; Sophomores: fall 57, winter 45, spring 48.

“ — H. S. White, Instructor; Optional (various classes): fall 27, winter 21, spring 9.

“ — Hewett, Instructor; Sophomores: fall 17, winter 38 (16 and 11 and 11), spring 13.

“ — Hewett, Instructor; Optional: fall 12 (8 and 4), winter 21 (15 and 6), spring 22 (9 and 7 and 6).

“ — MacKoon, Instructor; Freshmen: fall 95, winter 82, spring 67.

NOTE.—The above includes Old and Middle High German. No classes this year in Dutch or in the Scandinavian Languages.

3. AGRICULTURAL AND ANALYTICAL CHEMISTRY.

Caldwell, Instructor; Optional (lectures): fall 4, winter 4, spring not reported.

Caldwell, Instructor; Optional (laboratory work): fall 29, winter 73, spring 67.

Furry, Chemist to the Agricultural Exposition Station. No students.

Loring, Instructor; assisted in laboratory.

Rich, Instructor, assisted in laboratory.

4. PSYCHOLOGY.

Dr. Wilson, Instructor; Juniors, 51.

5. COMPARATIVE ANATOMY AND ZOÖLOGY.

Wilder, Instructor; Freshmen: fall 89. Sophomores: fall 26, winter 4, spring 2. Juniors: fall 13, winter 3, spring 2. Seniors: fall 8, winter 2, spring 1. Special and Optional: fall 8, winter 2, spring 1. Post-graduates: fall 3, winter 3, spring 3.

Gage, Instructor; Optional (besides laboratory work): fall 13, spring 11.

6. VETERINARY MEDICINE AND SURGERY.

Law, Instructor; Freshmen: spring 2. Sophomores: fall 5, winter 4, spring 5. Juniors: fall 3, winter 4, spring 3. Seniors: fall 2, winter 3, spring 2. Post-graduates: fall 2, spring 2.

7. BOTANY, HORTICULTURE, AND ARBORICULTURE.

Prentiss, Instructor; all classes: fall 11, winter 25, spring 90.

Dudley, Instructor; fall 20, winter 15, spring 122.

8. PRACTICAL MECHANICS AND MACHINE CONSTRUCTION.

Morris, Instructor; all classes (besides shop work): fall 13, winter 10, spring 11.
 Webb, Instructor; all classes: fall 14, winter 17, spring 33.
 Clinton, Instructor; shop work.

9. FRENCH, SPANISH, ITALIAN.

FRENCH.—Crane, Instructor; Sophomores: fall 55, winter 50, spring 44. Juniors and Seniors: fall 24, winter 21, spring 21. French History.—Juniors and Seniors: fall 7, winter 4, spring 3.

Rœhrig, Instructor; Sophomores: fall 16, winter 13.

Brunn, Instructor; Freshmen: fall 72, winter 58, spring 52.

SPANISH—Crane, Instructor; all classes: fall 13, winter 10, spring 9.

ITALIAN—Crane, Instructor; all classes: fall 5 and 6, winter 3 and 4, spring 4 and 3.

10. GENERAL CHEMISTRY AND MINERALOGY.

Schæffer, Instructor; all classes: fall 12, winter 92, spring 88.

Newberry, Instructor; all classes: fall 7, winter 12, spring 41.

11. SANSKRIT AND LIVING ASIATIC LANGUAGES.

Sanskrit—Rœhrig, Instructor; Seniors and Juniors: fall 10, winter 10, spring 6.

Arabic—Rœhrig, Instructor; all classes: fall 7, winter 9, spring 5.

12. ANGLO-SAXON.

Corson, Instructor; Freshmen: winter 10, spring 10.

13. ENGLISH LITERATURE.

Corson, Instructor; Sophomores: fall 10, same throughout the year. Juniors: fall 45, same throughout the year. Seniors: fall 25, same throughout the year. Post-graduates: fall 2, same throughout the year.

14. GERMAN (See North European Languages).

15. MATHEMATICS.

Oliver, Wait, Jones, Instructors. Their report is very carefully made, and with great detail, but it is impossible to classify their work in the form prescribed. Their classes were divided between them as equally as possible; but it cannot be learned from the report just how many *students* each taught this year.

16. GREEK.

Flagg, Instructor; Freshmen: fall 13, winter 6, spring 5. Sophomores: fall 5, winter 5, spring 5. Advanced: number not given.

17. RHETORIC AND GENERAL LITERATURE.

Shackford, Instructor; Juniors: fall 52, winter 51, spring 46; Seniors: fall 44, winter 40, spring 36, besides seminary and optional work.

Carpenter, Instructor; Freshmen: fall 124, winter 123, spring 73; Sophomores: fall 43, winter 42, spring 39.

18. ARCHITECTURE.

Babcock, Instructor; all classes, 48.

Osborne, Instructor; draughting and laboratory work.

19. PHYSICS.

Anthony, Instructor; all classes: fall 110, winter 100, spring 95; in laboratory practice, 25 during year.

Moler, Instructor; all classes: fall 63, winter 27, spring 41; in laboratory practice: fall 5, winter 6, spring 14.

20. CIVIL ENGINEERING.

Fuertes, Church, Crandall, Instructors; Freshmen: fall 0, winter 26, spring 31. Sophomores: fall 23, winter 25, spring 25. Juniors: fall 16, winter 14, spring 14. Seniors: fall 18, winter 14, spring 14. Fifth-year students: fall 1, winter 1, spring 0.

NOTE.—Impossible to gather from the reports just what portion of these Professors Fuertes and Crandall had respectively; but Church had Seniors and Juniors: fall 16, winter 26, spring 25. Of course the others had, in most cases, the *same* pupils.

21. FREE-HAND AND MECHANICAL DRAWING.

Cleaves, Instructor. No statistics. Classes large.

22. AGRICULTURE.

Roberts, Instructor. No statistics.

23. ENTOMOLOGY AND INVERTEBRATE ZOÖLOGY.

Comstock, Instructor; Freshmen: winter 17, spring 8. Sophomores: winter 19, spring 8. Juniors: fall 1, winter 7, spring 4. Seniors: fall 2, winter 4, spring 1. Optional: winter 4, spring 6. Post-graduates: winter 1, spring 3.

24. MILITARY SCIENCE.

Burbank, Instructor. Report not to be found.

25. GEOLOGY.

S. G. Williams, Instructor; Freshmen: fall 3. Sophomores: fall 3, winter 2. Juniors: fall 29, winter 21, spring 2. Seniors: fall 11, winter 7, spring 2. Optional: fall 3, winter 5. Post-graduates: fall 2, winter 2; spring 2.

26. PALÆONTOLOGY.

H. S. Williams, Instructor. Report not found.

27. GENERAL HISTORY.

MODERN HISTORY—Pres. White, Instructor; Sophomores: fall 1, winter 2. Juniors: fall 28, winter 27. Seniors, fall 9, winter 12. Optional: fall 3, winter 5.

PHILOSOPHY OF HISTORY—Dr. Wilson, Instructor; Seniors, 36.

HISTORY OF INSTITUTIONS—C. K. Adams, Instructor; Sophomores, 2. Juniors, 27. Seniors, 12. Optional, 5.

ANCIENT HISTORY—Perkins, Instructor; Freshmen and Sophomores 37 (30 and 39, 23 and 12).

28. LATIN.

Hale, Rolfe, Instructors; Freshmen: fall 24, winter 23, spring 24. Sophomores: fall 10, winter 10, spring 11. Advanced: fall 15, winter 18, spring 15.

NOTE.—Impossible to tell how many belong to each Professor.

29. AMERICAN HISTORY AND LITERATURE.

Tyler, Instructor; Juniors: fall 37, winter 37, spring 30. Seniors: fall 23, winter 22, spring 20.

30. POLITICAL SCIENCE.

Tuttle, Instructor. No report rendered.

31. ENGLISH HISTORY.

Goldwin Smith, Instructor. No report rendered.

Tuttle, Instructor. No statistics. Class quite large.

Perkins, Instructor; Sophomores: fall 20, winter 18, spring 16.

32. POLITICAL ECONOMY.

Dr. Wilson, Instructor; Seniors and Juniors, 22.

H. C. Adams, Instructor. Absent. No report rendered.

33. AMERICAN LAW.

Dr. Wilson, Instructor; Seniors and Juniors, 88.

34. LOGIC. Not taught this year.

35. MICROSCOPICAL TECHNOLOGY. (See under Comparative Anatomy and Zoölogy. Gage).

**WOMEN STUDENTS AND GRADUATES AT CORNELL BY
YEARS AND BY COURSES.**

	'72-'73	'73-'74	'74-'75	'75-'76	'76-'77	'77-'78	'78-'79	'79-'80	'80-'81	'81-'82	'82-'83
Seniors,	1	2	3	5	7	7	12	9	12	11	10
Juniors,	1	3	7	8	8	20	12	15	14	10	8
Sophomores,		8	8	10	22	15	16	18	10	13	8
Freshmen,	15	14	12	22	21	18	18	10	16	17	16
Optional,	1	2	7							4	7
Post-Graduates,	1		3	2	5	3	2	3	5	3	6
Total,	18	29	40	47	63	63	60	55	57	58	55
Graduated,	1	3	3	5	6	7	9	9	13	12	10
Arts,	1	4	5	5	7	8	9	12	13	8	6
Architecture,				2					1	1	2
Agriculture,					1	1					1
Chemistry,						1	1				
Engineering,											
History,								1	1		1
Electric Engineering,											
Literature,		2	6	13	16	14	17	9	7	7	5
Mechanical Arts,											
Mathematics,									1	1	
Medical Preparatory,											
Philosophy,			1	2	5	2	6	4	4	7	2
Natural History,			1	1	3	1			1	1	2
Science,	8	14	17	22	16	22	21	22	18	24	21
Veterinary Science,											
Optional,	9	9	7	2	13	14	6	7	11	9	15
At Sage College,				23	23	28	29	29	32	32	26

Total number of students who have attended, 220.

Total number of graduates, 78.

Degrees taken as follows: A. B. 22; Ph. B. 6; B. Lit. 17; B. S. 32; Arch B. 1.

The average age of women at graduation is 23 years and 3 months, almost one year more than the average age of men graduates.

NUMBER OF STUDENTS

IN THIS AND OTHER COLLEGES IN THIS STATE IN 1882, AND ALSO OF
THE NUMBER OF GRADUATES THEREIN IN 1882, AND OF THE TOTAL
NUMBER OF GRADUATES OF EACH COLLEGE.

	STUDENTS.		GRADUATES.	
	Liberal Arts.	Total.	In 1882.	Total.
CORNELL UNIVERSITY,	34	358	64	831
Columbia College,	298	1610	375	7597
Union College,	190	190	44	4675
Hamilton College,	181	181	34	2288
Hobart College,	63	63	18	636
Rensselaer Polytechnic,		108	17	775
Madison University,	96	96	21	867
University of Rochester,	162	162	22	774
St. Lawrence University,	64	64	12	104
College St. Francis Xavier,	104	104	22	372
College of City of New-York,	858	858	45	989
Syracuse University,	156	288	37	249
Vassar College,	177	215	39	565
Wells College,	34	34	2	58
Elmira Female College,	59	59	5	233
Ingham University,	55	232	5	307

Compiled from Regents' Reports.

NUMBER OF INSTRUCTORS IN CORNELL UNIVERSITY AND OTHER
PRINCIPAL COLLEGES IN THIS STATE IN 1882.

Cornell University,	53	St. John's College,	11
Columbia College (Arts, Mines and Political Science),	55	University of Rochester,	12
Union College,	16	St. Lawrence University,	10
Hamilton College,	14	Alfred University,	7
Hobart College,	9	Ingham University,	15
University City of New-York,	14	Vassar College,	31
Rensselaer Polytechnic Institute,	16	College City of New-York,	34
Madison University,	11	Wells College,	12
		Syracuse University,	17

Compiled from Regents' Reports.

NUMBER OF PROFESSORS, ASSOCIATE, ASSISTANT AND NON-RESI-
DENT PROFESSORS AND INSTRUCTORS EACH
YEAR IN THE UNIVERSITY.

	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883
Professors,	19	21	19	21	21	21	23	23	24	25	26	24	27	26	26	27
Associate and Assistant Professors,	6	10	10	11	10	11	9	12	12	12	12	15	18	16	15	15
Instructors,	1	2	3	3	4	9	9	8	8	9	7	9	3	6	8	8
Non-Resident Professors,	6	7	7	8	9	8	7	7	5	6	2	2	2	5	4	5

Compiled from Registers.

PROGRAM

OF THE DEPARTMENTS OF THIS UNIVERSITY IN THE NUMBER AND
KIND OF INSTRUCTORS IN EACH DEPARTMENT.

PROGRESS AND DEVELOPMENT.—CONTINUED.

[illegible]

PROGRESS AND DEVELOPMENT.—CONTINUED.

DEPARTMENTS.	1868-'69.	1869-'70.	1870-'71.	1871-'72.	1872-'73.	1873-'74.	1874-'75.	1875-'76.	1876-'77.	1877-'78.	1878-'79.	1879-'80.	1880-'81.	1881-'82.	1882-'83.	1883-'84.
Professors of Comparative Anatomy,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Zoölogy,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gen. and Economic Geology, .	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Microscopical Anatomy, . . .		1														
Assistant Professors of Botany, .										1	1	1	1	1	1	1
Horticulture,										1	1	1	1	1	1	1
Entomology,								1	1	1	1	1	2	1		
Invertebrate Zoölogy,								1	1	1	1	2	1			
Physiology,														1	1	1
Gen. and Economic Geology, .								1	1	1	1	1	1			
Palæontology,														1	1	1
Instructors of Botany,			1	1	1	1	1	1								
Horticulture,						1	1	1	1	1						
Entomology,					1	1	1									
Physiology,											1	1				
Zoölogy,								1	1	1	1	1				
Gen. and Economic Geology, .					1	1		1	1	1	1	1				
Palæontology,							1	1	1	1	1	1				
Microscopical Anatomy, . . .											1	1				
Non-resident Profs. of Zoölogy, .	1	1	1													
PHILOSOPHY AND LETTERS.																
Professors of Anglo-Saxon, . . .				1	1	1	1	1	1	1	1	1	1	1	1	1
Oratory,				1	1	1	1	1	1	1	1	1	1	1	1	1
English Literature,				1	1	1	1	1	1	1	1	1	1	1	1	1
Rhetoric,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
General Literature,				1	1	1	1	1	1	1	1	1	1	1	1	1
Moral Philosophy,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Intellectual Philosophy, . . .	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Assistant Professors of Rhetoric, .														1		
Instructors of Anglo-Saxon, . .																1
English Literature,																1
Rhetoric,							1	1	1	1	1			1	1	1
ROMANCE, LANGUAGES AND LITERATURE.																
Professors in French,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Italian,							1	1	1	1	1	1	1	1	1	1
Spanish,							1	1	1	1	1	1	1	1	1	1
Assistant Professors in French, .	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1
Italian,			1	1	1	1										
Spanish,	1	1	1	1	1	1										
Instructors in French,															1	1
ORIENTAL LANGUAGES AND LITERATURE.																
Profs. of Living Asiatic Languages, .					1	1	1	1	1	1	1	1	1	1	1	1
Non-resident Profs. in Hebrew and Oriental Literature and History, .					1	1	1	1								

NUMBER OF INSTRUCTORS

IN VARIOUS DEPARTMENTS IN CORNELL UNIVERSITY, AND ALSO IN HARVARD, YALE, ANN ARBOR, JOHNS HOPKINS, PENNSYLVANIA, COLUMBIA, HAMILTON, AMHERST, WILLIAMS, DARTMOUTH AND PRINCETON.

EXPLANATION.—In the first column the figure 1 stands for Full Professors, 2 for Associate and Assistant Professors, 3 for Tutors, and 4 for Non-Resident Professors. The figures in the other columns indicate the number of each class of instructors in each college, and the fractions indicate that the instructor has other departments than the one indicated. Compiled from the college catalogues.

	Cornell.	Harvard.	Yale.	Ann Arbor.	Johns Hopkins.	Pennsylvania.	Columbia.	Hamilton.	Amherst.	Williams.	Dartmouth.	Princeton.
PHILOSOPHY.												
1	1	2	2	2	2	.	1	.	1	1	.	1
2	.	1	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	1	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	1
GREEK.												
1	1	2	1	1	1½	1	1	1	1	1½	1	2
2	.	2	1	1	½	.	1	½	.	.	1	.
3	.	½	1	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.
LATIN.												
1	1	3	3	1	.	1	.	.	1	½	1	2
2	.	1	.	1	.	.	.	.	.	.	1	.
3	.	.	.	.	.	.	.	.	.	.	.	.
4	1	1	2½	1	.	2	.	1	½	.	1	.
SANSKRIT AND CHINESE.												
1	1	2	2	.	.	.	.	.	.	.	.	.
2	.	.	.	½	½	.	.	.	.	.	.	.
3	.	.	.	.	.	½	½	½	1	.	½	.
ANGLO-SAXON.												
1	1	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	1	.	.	.	.	.	.
SOUTH EUROPEAN LANGUAGES.												
1	1	1	¼	¼	.	¼	¼	¼	¼	¼	¼	¼
2	.	¼	.	1	.	.	.	.	.	.	.	¼
3	.	1	.	.	2	.	.	.	.	.	.	.
GERMAN.												
1	2	¼	¼	.	.	1	1	½	1	.	.	¼
2	1	1	1	.	.	.	.	.	.	.	.	.
3	.	1	2	.	2	.	1	.	½	½	¼	.
FRENCH.												
1	.	¼	¼	¼	.	.	¼	¼	¼	¼	1	¼
2	1	¼	.	.	.	.	.	.	.	.	.	.
3	1	1½	.	1	.	2	.	.	1½	.	.	.
4	.	.	.	1	.	.	.	.	.	.	.	.
HISTORY—GENERAL.												
1	1	2	1	1	.	⅔	⅓	¼	½	½	.	½
2	2	1	.	1	1	.	.	.	.	.	.	.
3	1	1	.	.	1	.	.	.	.	.	.	.
AMERICAN HISTORY.												
1	1	.	1	.	.	1	.	.	.	.	.	.
3	.	1	.	.	.	.	.	.	.	.	.	.
ENGLISH LITERATURE, RHETORIC, ETC.												
1	2	2	3	1	1½	1	1	1	1	2½	2	.
2	1	.	.	1	1	.	.	.	1	1	.	.
3	1	2	1	.	1	.	1	.	.	.	.	.
4	.	.	.	.	3	.	.	.	.	.	.	.
PHYSICS.												
1	1	3	3	1	1	1	.	.	½	1	1	.
2	.	1	.	1	.	1	.	.	.	.	.	.
3	.	1	.	.	1	1	1	.	.	.	1	1
BIOLOGY, PHYSIOLOGY, ANATOMY, ZOOLOGY.												
1	2	1	3	3	1	1	.	1	2	.	2	2
2	1	2	.	.	2	.	.	.	.	.	1	.
3	.	.	2	1	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	1	.	.
CHEMISTRY.												
1	2	3	6	2	1	1	1	1	1	1	3	2
2	1	1	.	1	2	.	.	.	.	.	.	.
3	1	1	3	1	1	2	.	1	.	.	.	.
GEOLOGY, PALEONTOLOGY, ETC.												
1	1	2	2	2	.	2	1	.	½	.	1	1
2	1	.	.	.	.	.	.	.	.	.	.	.
3	.	1	.	.	.	.	.	.	.	.	.	.
MATHEMATICS.												
1	1	2	2	1	1	1	1	1	1	1	2	2
2	2	1	3	2	3	1	.	.	.	.	1	.
3	.	1	1	.	.	.	2	1	1	.	.	2
POLITICAL ECONOMY.												
1	.	1	2	.	.	1½	1½	.	½	.	1½	.
2	2	1	.	.	1	.	.	.	.	.	.	.
3	.	1	1	.	.	.	.	.	.	.	.	.
4	2	.	.	1	.	.	.	.	.	.	.	.
CIVIL ENGINEERING.												
1	1	1	1	2	.	2	3	1	.	.	2	1
2	3	.	.	.	.	1	1	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	2	2
4	.	.	.	.	.	.	.	.	1	.	.	.
MECHANICS.												
1	3	.	.	.	.	1	.	.	.	.	1	.
VETERINARY SCIENCE.												
1	1	1	.	.	1	.	.	.	.	.	.	.
ARCHITECTURE AND DRAWING.												
1	1	.	1	.	.	1	1	.	.	.	.	.
2	1	.	1	.	.	.	.	.	.	.	.	.
3	.	2	2	.	1	2	.	.	.	.	.	.
AGRICULTURE.												
1	1	1	1	.	.	.	.	.	.	.	.	.
3	2	1	.	.	.	.	.	.	.	.	1	.
BOTANY, ARBORICULTURE, ETC.												
1	1	4	1	1	.	1	.	.	1	.	.	.
2	1	3	.	1	.	.	.	.	.	.	.	.
3	.	.	.	.	.	1	.	.	.	.	.	.

REQUIRED STUDIES FOR ADMISSION TO CORNELL, HARVARD, YALE, AND MICHIGAN.
I.—THE COURSE IN ARTS.

STUDIES.	CORNELL.	HARVARD.	YALE.	MICHIGAN.
ENGLISH GRAMMAR,	Whitney's Essentials of English Grammar and a short composition.	Short English composition; correction of bad English.		Short English composition.
GEOGRAPHY,	Political and physical and ancient.			Political, and physical, and ancient.
PHYSIOLOGY,	Smaller text-book, exclusive of nervous system and names of bones and muscles.			
ARITHMETIC,	Large text-books, including metric system.	Same.	Same.	Same.
PLANE GEOMETRY,	Usual first six or five books.	Same.	First 4 books.	Plane, solid and spherical geometry.
ALGEBRA,	Through quadratic equations, including radicals and theory of exponents.	Algebra, through quadratics.	Same.	Same, with logarithms in addition.
GREEK,	100 pages Attic prose. Homer, 3 books. Translation English into Greek, Greek into English, at sight.	Translation at sight of easy passages from Xenophon. Translation English into Greek.	Xenophon, 4 books. Homer, 3 books, with prosody. Translation, etc., same.	Xenophon, 3 books. Translation, etc., same.
LATIN,	Cesar, 4 books. Virgil, Eclogues and Æneid, 6 books; Cicero, 6 orations. Translation of Latin at sight. Translation into Latin.	Same. Virgil, Æneid, 6 books. Translation at sight of easy passages.	Same. Virgil, Æneid, 6 books and bucolics. Cicero, 7 orations. Same.	Same. Virgil, Æneid, 12 books. Cicero, 6 orations. Same.
GREEK AND ROMAN HISTORY,	Smaller Histories,	Same. Elements. Translation at sight of easy passages.	Same.	Same.
PHYSICS,				
FRENCH OR GERMAN,				
HISTORY,				American colonial history.

REQUIRED STUDIES FOR ADMISSION TO CORNELL, HARVARD, YALE, AND MICHIGAN.

II.—AGRICULTURE, ARCHITECTURE, ENGINEERING AND MECHANIC ARTS AT CORNELL; AGRICULTURE AND ENGINEERING AT YALE, AND ENGINEERING AT HARVARD AND MICHIGAN.

STUDIES.	CORNELL.	HARVARD.	YALE.	MICHIGAN.
ENGLISH GRAMMAR,	Grammar and short composition.	Same.	Grammar.	Grammar and composition.
GEOGRAPHY,	Political and physical.		Same.	Same.
PHYSIOLOGY,	Smaller text-book, exclusive of nervous system and names of bones and muscles.			Same, or geology, or zoölogy, or chemistry.
ARITHMETIC,	Large text-books, including metric system.	Same.	Same.	Same.
GEOMETRY,	First 6 books of plane. Through quadratic equations.	Same. Solid geometry.	Plane, solid and spherical. Entire.	Plane, solid and spherical. Entire.
ALGEBRA,				
PLANE AND ANALYTIC TRIGONOMETRY, . . .		Wheeler's Elements.		
FRENCH OR GERMAN, .		Translation easy passages at sight.		Same.
LATIN,		Cæsar, 4 books. Grammar. Virgil, 4 books. Elementary descriptive.	Cæsar, 6 books. Grammar.	
CHEMISTRY,				
PHYSICS,		Elementary descriptive.		Elementary descriptive.
HISTORY U. S.,			Entire.	Colonial and general history.
ENGLISH LITERATURE,				Primer, Brooks'.

REQUIRED STUDIES FOR ADMISSION TO CORNELL, HARVARD, YALE, AND MICHIGAN.

III.—SCIENCE, SCIENCE AND LETTERS, MATHEMATICS, CHEMISTRY AND PHYSICS, AND ANALYTICAL CHEMISTRY AT CORNELL;
 CHEMISTRY, MATHEMATICS, AND PHYSICS, AND ASTRONOMY AT HARVARD; CHEMISTRY
 AT YALE, AND SCIENCE AT MICHIGAN.

STUDIES.	CORNELL.	HARVARD.	YALE.	MICHIGAN.
ENGLISH GRAMMAR, .	Grammar and short composition.	Composition.	Grammar.	Same.
GEOGRAPHY,	Political and physical.		Same.	Same, and ancient geogra'y.
PHYSIOLOGY,	Smaller text-book, exclusive of nervous system and names of bones and muscles.			Same, or instead chemistry, geology or zoology.
ARITHMETIC,	Large text-books, including metric system.	Same.	Same.	Same.
GEOMETRY,	First 6 books plane geometry.	Same for chemistry. Plane and solid for other courses.	Plane, solid and spherical.	Plane, solid and spherical.
ALGEBRA,	Through quadratic equations.	Same for chemistry. Entire for other courses.	Entire.	Same, and logarithms.
FRENCH OR GERMAN, .	Easy reading.*	Easy reading.		Same, or French and Latin, or German and Latin.
LATIN,			Caesar, 4 books, and Grammar.	Easy reading in French and German.
PLANE AND ANALYTIC TRIGONOMETRY, . .		Caesar, 4 books; Æneid, 4 books; grammar.	Caesar, 4 books, and Grammar.	If Latin, then Caesar, 4 books; Cicero, 1 oration.
HISTORY,		Wheeler's Elements.	Wheeler's Elements. Entire.	General History: American, colonial and revolutionary. Elements.
PHYSICS,				Elements.
BOTANY,				Elements.

* In the place of this may be offered solid geometry and conic sections, advanced algebra and Wheeler's Elements of Plane and Analytical Trigonometry.

REQUIRED STUDIES FOR ADMISSION TO CORNELL, HARVARD, YALE, AND MICHIGAN.

IV.—PHILOSOPHY, LITERATURE, HISTORY, AND POLITICAL SCIENCE AT CORNELL; PHILOSOPHY AT YALE AND MICHIGAN.

STUDIES.	CORNELL.	HARVARD.	YALE.	MICHIGAN.
ENGLISH GRAMMAR, .	Grammar and composition.		Grammar.	Grammar and composition.
GEOGRAPHY,	Political and physical.			Political, physical and ancient.
PHYSIOLOGY,	Smaller text-books, exclusive of nervous system and names of bones and muscles.			
ARITHMETIC,	Large text-books, including metric system.		Same.	Same.
GEOMETRY,	First six books.		Plane, solid and spherical.	Plane, solid and spherical.
ALGEBRA,	Thorough quadratic equations.		Entire.	Same, with logarithms.
FRENCH OR GERMAN, .	Easy reading.			Same.
LATIN,	Cæsar, 4 books; Grammar; Eclogues; Æneid, 6 books; Cicero, 6 orations; translation at sight.		Cæsar, 6 books; grammar.	Cæsar, 4 books; Virgil, Æneid, 12 books; Cicero, 6 orations; translation into Latin and into English.
GREEK AND ROMAN HISTORY,	Elements of and ancient geography.		Entire.	Roman history.
HISTORY U. S.,				Colonial and revolutionary.
TRIGONOMETRY,			Wheeler's Elements.	

REQUIRED STUDIES FOR ADMISSION TO CORNELL, HARVARD, YALE, AND MICHIGAN.
V.—NATURAL HISTORY AT CORNELL, HARVARD AND YALE.

STUDIES.	CORNELL.	HARVARD.	YALE.	MICHIGAN.
ENGLISH GRAMMAR,	Grammar and composition.	Same.	Grammar.	
GEOGRAPHY,	Political and physical.			
PHYSIOLOGY,	Smaller text-books, exclusive of nervous system and names of bones and muscles.			
ARITHMETIC,	Entire.	Same.	Same.	
GEOMETRY,	First 6 books.	First 5 books.	Plane, solid and spherical.	
ALGEBRA,	Through quadratic equations.	Same.	Entire.	
FRENCH OR GERMAN, . .	Easy reading.	Same.		
PLANE TRIGONOMETRY,	Wheeler's Elements.	Same.	Wheeler's Elements.	
GREEK,	Alphabet, and enough to analyze scientific technical terms.			
LATIN,	Cæsar, 4 books, and grammar.	Cæsar, 4 books; grammar; Virgil, Æneid, 4 books. Elements.	Cæsar, 6 books, and grammar.	
CHEMISTRY,				
PHYSICS,		Elements.		
HISTORY U. S.,			Entire.	

REQUIRED STUDIES FOR ADMISSION TO CORNELL, HARVARD, YALE, AND MICHIGAN.

VI.—MEDICAL PREPARATORY AT CORNELL AND YALE.

STUDIES.	CORNELL.	HARVARD.	YALE.	MICHIGAN.
ENGLISH GRAMMAR, .	Grammar and composition.		Same.	
GEOGRAPHY,	Political and physical.		Same.	
PHYSIOLOGY,	Smaller text-books, exclusive of nervous system and names of bones and muscles.			
ARITHMETIC,	Large text-books, including metric system.		Same.	
GEOMETRY,	First 6 books.		Plane, solid and spherical.	
ALGEBRA,	Through quadratic equations.		Entire.	
PLANE TRIGONOMETRY,	Wheeler's Elements.		Wheeler's Plane Trigonometry.	
LATIN,	Cæsar, 4 books, and grammar.		Cæsar, 6 books, and grammar.	
GREEK,	Alphabet, and knowledge enough to recognize, analyze, and form scientific terms.			
HISTORY U.S.,			Entire.	

RECENT PUBLICATIONS BY OFFICERS OF CORNELL
UNIVERSITY. (REPRINTED FROM "THE LIBRARY.")

The following list includes books and articles published by the officers of instruction and government of Cornell University during the years 1882-'83 only:

CALDWELL, G. C., *editor*. Second report of the Cornell University Experiment Station. 1882-'83. Ithaca, N. Y., 1883. 8°. *Illus.*

Contains the following papers by Dr. Caldwell:

Relation of effect of ration to composition.

Methods of analyzing milk compared.

A fat-extractor.

Feeding experiments with malt-sprouts, and with ensilage for cows.

Pemberton's method for the extraction of phosphoric acid in fertilizers. (Also published in the *Journ. of the Franklin Institute*, March, 1882, p. 184, and (*abstr.*) in *Proc. of Amer. Assoc. for the Adv. of Sci.*, vol. xxxi., 1882, p. 289.)

—, and S. M. BABCOCK. A manual of qualitative chemical analysis. Ithaca [N. Y.], 1882. obl. 8°. pp. 27.

Also several articles in the *N. Y. Tribune* and *Rural New-Yorker* on agricultural topics, sent as a regular contributor to these periodicals.

COMSTOCK, J. H. Report on insects for the year 1881. *Plates*. (U. S.—*Department of Agriculture*. Report, 1881. Wash., 1882. 8°.)

— *Same*. *Reprinted*. Wash., 1882. 8°. pp. 22. *Plates*.

— [A fragment of a] Guide to practical work in elementary entomology, Ithaca, N. Y., 1882. 8°. pp. 35.

— Second report on scale insects; including a monograph of the sub-family Diaspinæ, of the family Coccidæ, and a list, with notes, of the other species of scale insects found in North America. (*In Cornell University—Experiment Station*. Report. 1882-'83. Ithaca, N. Y., 1883. 8°. pp. 46-147. *Plates*.)

— Lecture on scale insects. (*In West. N. Y. Hortic. Soc. Proceedings*, 1882.)

— The best methods of destroying scale insects. (*In Soc. for the Promotion of Agr. Sci. Proceedings*. 1882.)

— The apple *Bucculatrix*. (*In West. N. Y. Hortic. Soc. Proceedings*. 1883.)

— The hop-vine borer or hop-grub. *Illus.* (*Amer. Agriculturist*, June, 1883.)

— Plant lice on fruit trees.—The bag worm or basket worm (*Thyridopteryx ephemeraeformis*).—Tent-caterpillars and fall-web-worms.—The corn root worm. *N. Y. Tribune*, 1882-'83.)

— Abstracts of the literature on economic entomology. (*Science*, 1883.)

CORSON, H. The idea of personality, as embodied in Robert Browning's poetry, Browning Soc. papers, 1881-'84, part 3, p. 293.)

—, *editor*. The two voices, and A dream of fair women, by Alfred Tennyson; with an introduction and notes. N. Y., [1882]. 8°. (English classics.)

— Browning clubs in the United States. (*Literary World*, vol. xiv., No. 8. p. 127.)

CRANE, T. F. The legendary Dante. (*Cornell Review*, vol. ix., p. 189.)

- CRANE, T. F. Denis Florence MacCarthy. (*Catholic World*, vol. xxxv., p. 659.)
 — Roumanian folk-tales. (*Cornell Era*, Nov. 3, 1882.)
 — Medieval sermon-books and stories. (*Proc. Amer. Philos. Soc.*, vol. xxi., p. 49.)
 Read before the Society, March 16, 1883. One hundred copies separately reprinted.
 — A celebrated poison; Acqua Tofana. (*N. Y. Evening Post*, May 16, 1883.)
- FLAGG, I. Anacreontics, selected and arranged, with notes, by Isaac Flagg. Bost., 1882. sq. 16°. pp. vi. + (2) + 35.
 — Pedantic versicles. Bost., 1883. 16°. pp. (2) + 92.
 Consists mostly of contributions made to the *Cornell Review*, 1875-'80.
- GAGE, S. H. Observations on the fat cells and connective tissue corpuscles of Necturus (Menobranchus). Amer. Soc. of Microscopists. Proceedings, vol. iv., p. 109.)
 Separately reprinted, Buffalo, 1882, pp. 18, *plate*.
 — Cataloguing, labeling and storing microscopical preparations. (*Same*, vol. v., p. 169; *Journ. Royal Microscopical Soc. of England*, ser. II., vol. iii., p. 924.)
 — Pharyngeal respiration in the soft-shelled turtle. (*Aspidonectes spinifer*). (Amer. Assoc. for the Adv. of Sci. Proceedings, vol. xxxii.)
 —, and T. SMITH. Serial microscopic sections. (*Medical Student*, vol. 1., p. 14.)
 — See also WILDER, B. G., and S. H. GAGE. Anatomical technology.
- HEWETT, W. T. University administration. (*Atlantic Mo.*, vol. 1., No. 300, p. 505.)
- OLIVER, J. E. On the law of distribution of certain plant-numbers. (Amer. Assoc. for the Adv. of Sci. Proceedings, 1882, vol. xxxi., p. 117.)
 — A method of finding the law of linear elasticity in a metal. (*Same*, p. 118.)
 The above are brief abstracts of remarks at the Montreal meeting.
 —, L. A. WAIT, and G. W. JONES. A treatise of Algebra. [Pt. 1.] Ithaca [N. Y.], 1882. 8°. pp. (4) + 172.
- TUTTLE, H. Some traits of Bismarck. (*Atlantic Mo.*, vol. xlix., no. 292, p. 149.)
 — The new Eastern Question. (*Same*, vol. xlix., no. 296, p. 808.)
 — German political leaders. (*Harper's Mag.*, vol. xli., p. 368.)
 — Academic socialism. (*Atlantic Mo.*, vol. lii., no. 310, p. 200.)
 — A vacation in Vermont. (*Harper's Mag.*, vol. lxvii., p. 813.)
 — History of Prussia to the accession of Frederick the Great. Bost., 1884 [1883]. 8°. pp. xv. + 498.
- WHITE, A. D. Two addresses at Cleveland, Ohio, 25th and 26th October, 1882: 1. On the plan of Western Reserve University; 2. On the education of the freedmen. [Ithaca, N. Y.], 1882. 8°. pp. 20.
 — The new Germany. (Amer. Geog. Soc. Bulletin, 1882, No. 4.)
 — *German*. Neu-Deutschland; übersetzt von Dr. Wilhelm Ruprecht. Göttingen, 1883. 8°. pp. (4) + 46.

LIST OF DONORS TO CORNELL UNIVERSITY LIBRARY,
FROM JUNE 1, 1883, TO MARCH 25, 1884, WITH NUMBER OF VOLUMES AND
PAMPHLETS DONATED.

(Furnished to me by Mr. Harris, Acting Librarian.)

	Vols.	Pamp's.
Academia Polytechnica, Porto,	1	. . .
Allen, Rev. J. H., Ithaca,	1	. . .
American Institute of Mining Engineers,	1	. . .
American Museum of Natural History, New-York, . . . . .	. . .	5
American Railroad Master Mechanics' Association,	3	. . .
Appleton & Co., New-York,	8	. . .
Asiatic Society of Bengal,	3	. . .
Batterson, Rev. H. G.,	1	. . .
Bergen Museum, Bergen, Norway,	1	. . .
Bolton, H. C., Hartford, . . . . .	. . .	2
Boston Public Library,	1	. . .
Bowick, T., Bedford, Eng.,	1	. . .
Brazil Museo Nacional,	2	. . .
Brooklyn Library, . . . . .	. . .	1
Buffalo Society of Natural Sciences, . . . . .	. . .	1
Buffalo Young Men's Association Library,	1	. . .
Burbank, J. B.,	16	. . .
Caldwell, G. C., Ithaca,	1	1
Canada Geological Survey,	4	. . .
Cobden Club, London, Eng.,	1	1
Collett, J., Indianapolis,	1	. . .
Colorado Board of Agriculture, . . . . .	. . .	2
Columbiad Editors, New-York,	1	. . .
Comstock, J. H., Ithaca, . . . . .	. . .	2
Cook, G. H., New Brunswick, N. J.,	3	. . .
Cornell, A. B., New-York,	1	. . .
Crane, T. F., Ithaca, . . . . .	. . .	2
Cumming and Brinkerhoff, New-York,	1	. . .
Davenport Academy of Natural Sciences, . . . . .	. . .	1
Diplomatic Review, London, England,	3	. . .
Dixwell, G. B., Boston, Mass.,	3	. . .
Dunglison, Dr. R. J., Philadelphia, . . . . .	. . .	5
Dwight, J. W.,	102	. . .
Eddy, H. T., Cincinnati,	2	4
Edinburgh University,	1	. . .
Emery, Lewis, Jr., Bradford, Penn.,	11	. . .
Engler, E. A., St. Louis, . . . . .	. . .	2
Finch and Apgar, Ithaca,	1	. . .
Fiske, W.,	4	. . .
Flagg, I., Ithaca,	2	. . .
Foote, Rev. H. W., Boston, Mass.,	1	. . .
Furnival, F. J., London, England,	1	. . .
Garman, S., Cambridge, Mass.,	1	1
Georgia Commissioner of Agriculture,	3	. . .
Gore, G., Birmingham, Eng.,	1	. . .
Grant, A. H.,	1	. . .
Gray, W. H., Astoria, Oregon,	1	. . .
Great Britain, Commissioner of Patents,	103	. . .
Green, S. A., Boston, Mass.,	37	145
Halle, Germany,	1	. . .
Harris, G. W., Ithaca,	5	. . .

LIST OF DONORS TO CORNELL UNIVERSITY LIBRARY.

	Vols.	Pamp's.
Harvard Astronomical Observatory,	1	1
Harvard University,	1	1
Hebrew Education Society, Philadelphia,	1	1
Hewitt, A. S.,	1	1
Holley, G. W., Niagara Falls,	1	1
Hough, F. B., Washington, D. C.,	1	1
Humphrey, W. R.,	4	1
Iverson, Blakeman, Taylor & Co., New-York,	8	1
Kansas Board of Agriculture,	2	2
Lesley, J. P., Philadelphia,	1	1
Library of Parliament, Ottawa,	4	4
Liverpool, England, Public Library,	1	1
Lord, H. B.,	1	1
Macmillan, T., London, Eng.,	2	1
Massachusetts State Library,	1	1
McBride, T. A., New-York,	2	1
McFarland, W. M.,	3	1
Mercantile Library of Philadelphia,	1	1
Michigan State Agricultural College,	1	1
Milwaukee Public Library,	1	6
Missouri University Library,	1	1
National Association of Wool Manufacturers,	3	1
New Bedford Public Library,	1	1
New Jersey Bureau of Statistics of Labor,	5	1
New Jersey State Library,	1	1
New-York Academy of Sciences,	2	1
New-York Produce Exchange,	2	1
New-York Regents of the University,	5	1
New-York Secretary of State,	47	1
New-York State Engineer,	1	1
New-York State Experiment Station,	1	1
New-York State Survey,	1	1
North Carolina Agricultural Experiment Station,	1	1
Norton, C. B., Boston, Mass.,	2	1
Ohio Commissioner of Common Schools,	1	1
Owen, R., London, Eng.,	1	1
Peabody Institute, Baltimore,	1	1
Pennsylvania State Agricultural College,	6	1
Perkins, F. B., San Francisco,	1	1
Phillips, H., Philadelphia,	1	1
Porter, L. H.,	1	1
Potter, Ainsworth & Co., New-York,	5	1
Prang & Co., Boston, Mass.,	6	1
Schuyler, E., Athens, Greece,	4	1
Smalley, F., Syracuse,	1	1
Smith, Goldwin, Toronto,	3	1
Smith, H. E., Albany,	1	1
Smithsonian Institution,	7	1
Society for Political Education,	1	2
Society of Telegraph Engineers, London, Eng.,	1	1
South Carolina Commission of Agriculture,	1	1
Spence, T. W., Fond du Lac, Wis.,	3	1
Stenger, W. S., Harrisburg, Pa.,	1	1
Stoddard, Mrs. M. F., Roxbury, Mass.,	1	1
Surtees Society, England,	25	1

LIST OF DONORS TO CORNELL UNIVERSITY LIBRARY.

	Vols.	Pamp's.
Taylor & Co., Buffalo,	1	. . .
Tennessee University,	1	. . .
Train, A. L., New Haven, Conn.,	1	. . .
United States—Adjutant-General,	1	. . .
—Bureau of Education,	1	. . .
—Bureau of Navigation,	3	4
—Bureau of Steam Engineering,	6	. . .
—Chief of Engineers,	2	. . .
—Coast Survey,	2	. . .
—Department of the Interior,	29	. . .
—Department of State,	1	. . .
—Life Saving Service,	1	. . .
—Naval Observatory,	1	. . .
—Patent Office,	9	. . .
—Surgeon-General,	2	. . .
—Treasury Department,	2	. . .
—War Department,	2	. . .
Vermont University,	1	. . .
Wesleyan University,	1	. . .
Westerman, B., New-York,	1	. . .
White, A. D., Ithaca,	46	43
Wright, C. D., Boston, Mass.,	1	. . .
Anonymous,	1	89
SAME—CONTINUED FROM MARCH 26 TO JUNE 1, 1884.		
Benet, S. V., Washington,	1	. . .
Bradlee, C. D., Boston, . . . . .	. . .	1
Butler, A. P., Columbia, S. C.,	2	3
Clarke, J. F., Boston,	1	. . .
Cook, G. H., New Brunswick, N. J.,	1	. . .
Delisle, L., Paris,	1	. . .
Engler, E. A., St. Louis, . . . . .	. . .	2
Esty, E. S., Ithaca,	3	. . .
Field, B. R., Easton, . . . . .	. . .	1
Green, S. S., Worcester,	1	. . .
Hall, James, Albany,	1	. . .
Henderson, J. T., Atlanta, Ga.,	1	. . .
Hough, F. B., Washington, . . . . .	. . .	1
Kansas Historical Society, . . . . .	. . .	2
Middle Temple Library, London,	1	. . .
Millard, S. C., Binghamton,	2	. . .
Newcomb, S., Washington,	1	. . .
New-York Free Trade Club, . . . . .	. . .	10
Oliver, J. E., Ithaca,	1	. . .
Parshall, J., Delhi, N. Y.,	1	. . .
Perkins, F. B., San Francisco, . . . . .	. . .	1
Roberts, E. H., Utica,	1	. . .
Protap Chundra Roy, Calcutta, . . . . .	. . .	6
Slocum, C. E., Defiance, O.,	1	. . .
Stuart, Mrs. R. L., New-York,	1	. . .
United States—Department of the Interior,	45	. . .
—Geological Survey,	1	. . .
—Treasury Department,	1	. . .
—War Department,	1	. . .
Waterston, R. C., Boston,	1	. . .
Zincken, C. F., Leipzig,	1	. . .
Anonymous, . . . . .	. . .	52

LIST OF DONORS TO CORNELL UNIVERSITY LIBRARY.

The following periodicals, presented by their respective publishers, are regularly received :

Bulletin of National Association of Wool Manufacturers,	Quarterly.	New-York Mail and Express, . .	Weekly.
Christian Register,	Weekly.	New-York Medical Times, . . .	Monthly.
Cincinnati Medical Recorder,	Monthly.	Northern Christian Advocate, . .	Weekly.
Civil Service Record,	Monthly.	Prairie Farmer,	Weekly.
Good Health,	Monthly.	Railway World,	Weekly.
Husbandman,	Weekly.	Sabbath Reading,	Weekly.
Index,	Weekly.	Sibley Index,	Weekly.
Journal of Education,	Monthly.	Signs of the Times,	Monthly.
National Live Stock Journal,	Monthly.	Unitarian Review,	Monthly.
New Jerusalem Messenger,	Weekly.	Woman's Journal,	Monthly.

PROPERTY OWNED OR HELD IN TRUST BY THE UNIVERSITY.

Grounds,	\$99,093.91
Reservoir, tools, etc.,	19,556.54
Buildings and furniture,	772,172.76
Library,	110,515.00
Educational Collections,	196,543.07
Amount held by Mr. Sibley and Mr. Woodford,	31,500.00
Amount invested by Comptroller,	473,402.87
Amount invested in notes (with collateral security),	152,015.00
Amount invested in corporate bonds,	732,700.00
Amount invested in cottages on campus,	11,250.00
Amount invested in bonds and mortgages,	93,950.00
Cash on hand,	3,452.75
164,503 acres of western land, estimated value,	1,300,000.00
Contracts held for land sold,	2,085,004.28
Total,	\$6,081,156.18

REVENUE (FROM AUGUST 1, 1883, TO JUNE 1, 1884).

From tuition collected,	\$17,050.00
From other receipts from students,	1,168.24
From income from invested funds — received,	124,410.96
From income from invested funds — to be received by August 1st,	62,000.00
From all other sources received June 1st,	10,090.09
From all other sources to be received by August 1st,	3,000.00
Total (estimated),	\$217,719.29

EXPENDITURES (TO JUNE 1, 1884).

For salaries paid for instruction,	\$92,287.34
For prizes,	10.00
For improvements and repairs,	17,629.07
For fuel and other incidental expenses,	22,605.26
For all other purposes,	50,368.45
Total to June 1, 1884,	\$182,900.12

INCOME OF THE UNIVERSITY.

	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.
Tuition,	\$15,882.50	\$15,105.00	\$19,480.00	\$20,420.00	\$24,540.00	\$20,510.00	\$18,545.00	\$18,180.00	\$14,750.00	\$13,590.00
Rent of rooms, . .	2,971.03	2,741.62	2,506.52	2,841.67	1,865.16	1,622.68	2,287.08	2,596.61	. . . . .	. . . . .
Inc. prod. funds, .	80,000.00	80,000.00	80,000.00	82,770.00	79,596.98	79,335.00	73,661.91	70,935.00	123,807.66	114,701.22
Farm produce, . .	2,881.93	1,326.43	5,147.36	7,059.55	5,927.35	5,850.15	6,553.56	5,924.31	. . . . .	. . . . .
Chem. to stu'de'ts, .	1,230.25	1,130.50	1,457.71	1,770.55	1,547.92	1,802.36	1,071.70	1,075.79	. . . . .	. . . . .
Machine shop, . .	300.78	277.37	348.89	648.62	486.72	1,283.69	148.59	115.68	. . . . .	. . . . .
Fuel sold stu'de'ts, .	494.35	585.46	638.21	728.31	670.27	. . . . .	416.60	. . . . .	. . . . .	. . . . .
Printing office, . .	263.23	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Receipts from stu- dents aside from tuition, . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Other sources, . .	558.60	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	2,232.58	2,334.33
Total,	\$104,582.67	\$106,301.17	\$117,347.66	\$118,715.92	\$116,787.01	\$112,115.63	\$107,157.64	\$99,561.34	\$149,166.80	\$144,404.27

Compiled from Regents' Reports and Treasurer's Reports.

EXPENDITURES OF THE UNIVERSITY.

	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.
Agriculture, . .	\$3,595.39	\$3,199.99	\$8,191.10	\$6,700.00	\$5,332.73	\$5,551.19	\$5,936.87	\$5,956.86		
Anatomical, . .	464.77	636.99	730.41	1,000.00	505.28	476.86	781.55	793.70		
Architecture, . .	350.00	300.45	106.86	40.00	170.62	55.56	99.06	422.08		
Botany, etc., . .	437.36	468.73	327.01	600.00	343.47	266.22	254.30	275.71		
Care buildings, .	2,505.89	2,346.81	2,204.21	2,400.00	2,432.03	1,972.92	1,800.13	1,820.75		
Chemistry, . . .	3,344.76	2,242.15	2,208.51	3,200.00	1,973.26	2,341.99	2,084.61	1,885.31		
Civil engineering,	314.90	515.76	1,482.16	760.00	584.49	348.16	380.97	291.50		
Conchology, . .	112.30	350.00						91.61		
Contingent, . .	12,977.80	9,656.27	12,025.73	21,783.05	11,830.78	14,275.35	9,806.46	12,039.15		
Entomology, . .	107.57	192.42	143.92	110.00	47.29	206.45	48.17	75.23		
Fuel,	2,093.48	2,585.85	2,994.33	5,000.00	3,367.16	1,481.63	1,822.04	876.18	\$9,006.57	\$12,255.53
Geology,	560.04	1,547.37	471.40	200.00	57.30	99.34	102.42	19.29		
Insurance, . . .	1,873.00	1,876.03	2,311.25	2,430.00	1,715.00	1,549.75	1,823.00	1,014.28		
Library,	5,333.04	2,128.19	1,527.19	1,000.00	3,206.78	1,496.84	1,500.00	1,446.83		
Mechanic arts, .	586.71	1,122.86	969.33	2,000.00	854.76	1,283.69	564.11	1,004.97		
Military,	172.92	288.64	139.85	135.00	119.85	143.61	312.24	422.78		
Physics,	2,907.75	2,464.21	2,686.07	1,270.00	850.52	845.89	851.15	954.69		
Printing,	2,367.83	2,190.90	2,261.97	1,800.00	956.68	754.38	1,120.06	1,026.04		
Repairs,	1,542.63	635.63	466.50	2,200.00	2,157.72	827.02	1,611.22	1,011.92	7,363.58	4,641.63
Salaries,	65,253.04	67,230.45	70,270.83	73,500.00	73,283.32	74,224.96	74,886.34	71,716.19	93,182.05	96,073.02
Vet. Science, . .		85.03	104.58	125.00	4.53	18.47	11.25			
Water and grating,	5,613.19									
Prizes and scholarships,									145.00	120.00
Premium on investments, . .										2,374.35
All other purposes										16,680.30
Total,	\$112,351.12	\$102,055.69	\$111,653.21	\$126,243.05	\$109,793.47	\$108,220.28	\$105,801.95	\$103,145.07	\$128,751.85	\$143,815.23
Debt,	\$25,000.00	\$41,300.00	\$29,500.00	\$24,467.00	\$34,467.00	\$37,967.00	\$27,000.00			

Compiled from Regents' Reports.

CORNELL UNIVERSITY DONATION LIST.

DONOR.	GIFT.	AMOUNT.	TOTAL AMOUNT.
Ezra Cornell,	Endowment,	\$500,000.00	
	Cash,	25,000.00	
	Jewett cabinet,	10,312.33	
	Farm,	45,000.00	
	Cash,	96.00	
	Peter Smith farm,	10,000.00	
	Agricultural and botanical books,	1,000.00	
	Physical apparatus,	1,500.00	
	Collection of foreign birds,	400.00	
	Cash—debt subscription,	75,000.00	\$668,308.33
Henry W. Sage,	Sage college building,	150,000.00	
	Sage college endowment,	100,000.00	
	Sage chapel,	30,000.00	
	Cash—debt subscription,	20,000.00	
	Cash—for general purposes,	25,000.00	
	Cash—for dep. of his. and pol. sci.,	2,000.00	
	Sage conservatory,	15,000.00	342,000.00
Dean Sage,	Lectureship fund,		30,000.00
Wm. H. Sage,	Organ,		3,500.00
John McGraw,	Library building,	120,000.00	
	Cash—debt subscription,	20,000.00	
	Cash—for cases,	177.50	140,177.50
Jennie McGraw,	Chime of bells,	3,150.00	
	Cash—for cases,	2,000.00	
	Cash—for roof on McGraw buil'g,	662.50	
	Cash—for cases,	100.00	5,912.50
Jane P. McGraw,	Cash—for cases,		177.50
Andrew D. White,	Equipment,	5,812.79	
	Society hall,	1,128.19	
	Library,	14,624.97	
	President's house and grounds,	50,000.00	
	Cash—debt subscription,	20,000.00	
	Cash—for cases,	140.00	
	Cash—for trees,	100.00	
	Bronzes,	1,200.00	93,005.95
Mrs. A. D. White,	Great bell,		2,570.00
Hiram Sibley,	Sibley building,	28,821.14	
	Machinery,	10,000.00	
	Cash—debt subscription,	20,000.00	
	Endowment Sibley college,	30,000.00	
	Sibley foundry,	2,991.95	
	Reauleaux models,	8,000.00	99,813.09
Goldwin Smith,	Library,	10,000.00	
	Cash—for books,	1,000.00	
	Cash—for geological department,	500.00	
	Collection for geological dept.,	300.00	
	Cash,	1,318.40	13,118.40

CORNELL UNIVERSITY DONATION LIST.—CON.

DONOR.	GIFT.	AMOUNT.	TOTAL AMOUNT.
Stewart L. Woodford, .	Prize fund,		\$1,500.00
Horace K. White, . .	Veterinary prize,		500.00
Cascadilla Co., . . .	Share in building, estimated, . .		35,000.00
British governm't office,	Patent office collection,	\$8,000.00	
	Cereals of Great Britain,	3,000.00	11,000.00
Greene Smith,	Ornithological collection,		5,000.00
Col. E. B. Morgan, . .	Cash—for geological department, .		2,000.00
R. Hoe & Co.,	Printing press,		3,225.00
Wm. Kelly,	Mathematical library,		2,000.00
John E. Sweet,	Type-setting machine,		2,500.00
Rev. Samuel J. May, .	Books,		500.00
Prof. Willard Fiske, .	Books,		213.00
Lewis Morris,	Stock horse "Marshall,"		2,500.00
A. B. Benham,	Stock bull "St. Valentine,"		400.00
Geo. Bruce's Sons, . .	Type,		426.27
Alex. McMillan, . . .	Cash—for books,	150.00	
	Set of "New-York Tribune,"	125.00	275.00
Prof. Wm. M. Webb, .	Fossils of St. Domingo, estim'ed, .		250.00
Prof. A. S. Wheeler, .	Books, estimated,		75.00
Andrus, McChain & Lyons,			40.00
Titus & Bostwick, . .	Hay rake,		42.00
Adriance, Platt & Co.,	Buckeye mower,	125.00	
	Model of rake,	45.00	170.00
Luce & Van Order, . .	Horse hay fork,		12.00
Joseph Esty,			25.47
J. B. Morton,	Harrow,		30.00
D. M. Osborne & Co.,	Reaper,	130.00	
	Model of Kirby mower,	100.00	230.00
Wm. Ease, Jr.,	Shearing machine,		120.00
Ford & Bro.,	Model cultivator,		40.00
O. Ames & Son,	Shovel and spade,		2.50
T. Woodford,	Ayer's garden implement,		7.00
Brinkerhoff & VanDuzer,	Potato digger,		7.00
C. C. Hardy,	Mowing machine knife grinder, . .		5.00
B. B. Snow & Co., . .	Corn sheller,		16.00
A. J. Hadley,	Two pair sheep-shears,		2.50
Collins Co.,	Two axes,		7.00
C. W. Raymond, . . .	Specimens of gold,		50.00
C. Levings,	Seeds,		10.00
Mrs. S. B. Camfield, .	Books,		20.00
Smith, Earle & Co., .	Specimens of rubber,		10.00
Gen. Burt and citizens of Boston,	Botanical work,		400.00
Richard D. Webb, . .	Anti-slavery books,		30.00
Dr. W. Newcomb, . .	Minerals,		100.00
Gerritt Smith,	Cash,		100.00
E. K. Rossiter,	Book for architectural library, . .		200.00
W. S. Auchincloss, . .	Averaging machine,		75.00
H. W. Sage, A. D. White and D. Boardman, . .	Collection of corals,		225.00
			\$1,467,924.01

**AMOUNT EXPENDED BY THE UNIVERSITY ON BUILDINGS AND
COLLECTIONS, AND AMOUNT DONATED TO IT THEREFOR.**

I. BUILDINGS PAID FOR BY TRUSTEES AND OTHERS.

Building.	Donor.	Year.	Cost.
1. $\frac{1}{4}$ Cascadilla building,	Citizens of Ithaca,	1868	\$35,000.00
2. Natural history building,	John McGraw,	1871	120,000.00
3. Mechanical eng. building,	Hiram Sibley,	1871	28,821.14
4. President's house,	Andrew D. White,	1871	50,000.00
5. South farm building,	Ezra Cornell,	1873	5,000.00
6. Sage chapel,	Henry W. Sage,	1874	30,000.00
7. Sage college,	Henry W. Sage,	1875	150,000.00
8. Botanical laboratory and green- houses,	Henry W. Sage,	1882	15,000.00
9. Fiske house and grounds,	Mrs. J. McGraw-Fiske,	1882	210,000.00
10. Sibley foundry,	Hiram Sibley,	1882	3,000.00
11. $\frac{1}{2}$ of Memorial chapel,	Mrs. J. McG.-Fiske (now building),		10,000.00
12. McGraw-Fiske hospital,	Mrs. J. McG.-Fiske (to be erected),		15,000.00
13. McGraw library building,	Mrs. J. McG.-Fiske (to be erected), say		100,000.00
14. North building, }	Debt on,*	1873	80,485.16
15. Laboratory, }			23,699.12
Total cost of buildings to trustees and others.			\$876,005.42
Farm and grounds, gift of Ezra Cornell, 1868,			94,093.91
Total buildings and grounds,			\$970,099.33

In addition to the above, the university received, as maintenance fund, for:

Sage College,	\$100,000.00
McGraw-Fiske hospital,	25,000.00
McGraw Natural History building,	50,000.00
McGraw library,	678,800.00
	<u>\$853,800.00</u>

II. BUILDINGS PAID FOR BY THE UNIVERSITY.

Building.	Year.	Cost.
1. South building,	1868	\$70,111.25
2. North farm building,	1879	6,000.00
3. $\frac{3}{4}$ of Cascadilla building, purchased in	1879 for	37,010.94
4. New laboratory, not completed,	1883 estimated,	85,000.00
5. Gymnasium, not completed,	1883 estimated,	32,000.00
6. $\frac{1}{2}$ of Memorial chapel, not completed,	1883,	10,000.00
Total cost of buildings to Cornell University,		\$240,122.19

III. SUMMARY.

Buildings donated,	\$876,005.42
Grounds donated,	94,093.91
Buildings paid for by the university,	240,122.19
Total cost of buildings and grounds,	<u>\$1,210,221.52</u>

*The north building and the old laboratory appear on the university's books as paid for by the institution itself; but in 1873 Henry W. Sage, John McGraw, Hiram Sibley, and Andrew D. White, members of the Board of Trustees, gave to the university, to pay the debt incurred in the erection of these buildings, and for other purposes, \$150,000.00.

INCOME AND EXPENDITURE IN 1882 OF CORNELL AND OTHER
PRINCIPAL COLLEGES IN THIS STATE.

INSTITUTION.	Revenue.	Expenditure.
CORNELL UNIVERSITY,	\$144,404.27	\$143,815.23
Columbia College,	350,831.03	520,104.64
Union College,	39,634.14	52,272.70
Hamilton College,	23,866.58	27,869.27
Hobart College,	22,924.69	20,668.55
Madison University,	39,286.19	38,286.19
St. John's College,	72,937.85	75,282.04
Rochester University,	40,571.11	34,882.60
Elmira Female College,	70,424.55	73,186.71
St. Lawrence University,	9,964.80	9,964.80
Alfred University,	8,783.76	8,783.76
Vassar College,	159,374.85	164,843.22
College City of New-York,	138,788.41	138,337.94
Rutger's Female College,	5,000.00	5,000.00
Syracuse University,	69,216.30	69,216.30

Compiled from Regents' Reports.

FINANCIAL CONDITION OF CORNELL AND OTHER COLLEGES IN
THIS STATE IN 1882.

INSTITUTION.	Buildings and Grounds.	Library and Apparatus.	Other Property.	Total.	Debts.
CORNELL UNIVER.,	\$757,233.37	246,329.16	5,052,622.68	6,056,185.21	no debt.
Columbia College, .	1,185,500.00	405,216.56	4,698,106.98	6,288,823.54	103,240.00
Union College, . .	384,000.00	86,000.00	1,329,863.00	1,800,863.00	93,504.00
Hamilton College, .	320,000.00	117,000.00	270,131.06	707,131.06	34,700.00
Hobart College, . .	73,500.00	29,000.00	203,448.12	305,948.12	no debt.
Rensselaer Institute,	88,500.00	16,000.00	12,000.00	116,500.00	. . . .
Madison University,	122,000.00	29,000.00	514,191.00	665,191.00	no debt.
St. John's College, .	565,000.00	42,100.00	. . . . .	607,100.00	156,840.88
Rochester University,	326,169.58	96,318.37	450,598.62	873,086.57	6,304.10
St. Lawrence Univer.,	37,500.00	2,200.00	68,967.21	108,667.21	no debt.
Alfred University, .	105,000.00	25,000.00	131,000.00	261,000.00	22,000.00
Ingham University, .	87,500.00	30,000.00	. . . . .	117,500.00	12,000.00
Vassar College, . .	602,754.81	118,140.96	298,676.80	1,019,572.57	no debt.
College City N. Y.,	190,000.00	77,800.00	39,750.00	307,550.00	no debt.
Wells College, . .	265,000.00	9,550.00	200,000.00	474,550.00	2,330.84
Syracuse University,	287,000.00	38,536.00	444,000.00	769,536.00	100,000.00

Compiled from Regents' Reports.

SCHOLARSHIPS AND FELLOWSHIPS IN DIFFERENT COLLEGES.

HARVARD UNIVERSITY DISTRIBUTES YEARLY, IN		UNIVERSITY OF PENNSYLVANIA DISTRIBUTES YEARLY, IN	
Fellowships,	\$6,500.00	Scholarships (remission of tuition),	\$8,250.00
Scholarships,	27,000.00	Prizes,	355.00
Prizes,	1,055.00		
JOHNS HOPKINS DISTRIBUTES YEARLY, IN		PRINCETON DISTRIBUTES YEARLY, IN	
Fellowships,	\$10,000.00	Fellowships,	\$3,500.00
Scholarships,	4,500.00	Scholarships,	950.00
		Prizes,	1,600.00
DARTMOUTH DISTRIBUTES YEARLY, IN		YALE DISTRIBUTES YEARLY, IN	
Scholarships,	\$7,000.00	Fellowships,	\$2,515.00
Prizes,	500.00	Scholarships,	2,340.00
		Prizes,	790.00
AMHERST DISTRIBUTES YEARLY, IN		CORNELL DISTRIBUTES YEARLY, IN	
Scholarships,	\$4,300.00	State Scholarships (remission of tuition),	\$38,400.00
Prizes,	1,500.00	Fellowships, about,	4,800.00
		Scholarships, about,	4,800.00
WILLIAMS DISTRIBUTES YEARLY, IN		Scholarships, for women only,	2,500.00
Scholarships,	\$8,000.00	Prizes,	130.00
Prizes,	900.00		

Compiled from College Catalogues.

ADDENDA.

ADDITIONAL INFORMATION CONCERNING THE UNIVERSITY FROM THE LAST REPORT OF PRESIDENT WHITE.

JUST as the printing of this report is about concluded the president's report reaches me. I find in it some facts concerning the progress of the university during the present year which, inadvertently, I had omitted. For the purpose of making this report to the alumni as complete as possible the facts are here given in the president's language, under the heads in which they appear in his report.

AGRICULTURE.

The university farm has been brought into a very high state of efficiency, and serves as an example of an estate under high cultivation, which, while improved methods are tried and various experiments conducted, shows a balance on the right side of the ledger. Every means has been taken to make instruction as thorough and complete as possible.

ARCHITECTURE.

The large additions made to the collections of illustrative books, photographs, drawings, building materials, and models, within the past few years, have given an evident impulse to the instruction. In accordance with the vote of this Board at its last annual meeting, new accommodations have been provided far superior to the old. These embrace a special library, museum rooms, two lecture rooms, and two rooms for drawing. Beside this, very considerable additions have been made to the collections of illustrative material; among them one hundred large drawings for use in the lecture room,—about one hun-

dred models in wood and stone,—and about one hundred photographs of working drawings of government buildings, the gift of the government of the United States.

SIBLEY COLLEGE OF MECHANIC ARTS.

A very valuable addition to the means of instruction has been made by the increase in the collection of the Reuleaux models, the gift of the Hon. Hiram Sibley. This admirable collection, the only one of its kind in our country, is now very nearly complete. There have also been added four lathes made in our own shop, beside some small tools, patterns, etc., for foundry use, and a considerable collection of drawings and blue prints representing the most recent features in machine construction. Some models have also been added of use in the drafting room. Mr. Sibley has decided to add very largely to his gifts. To this end he has authorized the expenditure of the sum of \$34,960 in the extension of the main building, so as to afford the proper museum, lecture room, and drafting accommodations and for the building of a range of shops and mechanical laboratory. In addition to the above gift, Mr. Sibley has signified his intention of adding to the amount he has already pledged to the Sibley College as an endowment for instruction therein, the sum of \$20,000, making \$50,000 for that special purpose.

GEOLOGY AND PALEONTOLOGY.

As to illustrative materials, two interesting collections of fossils have been added by purchase—the Bassett collection of crinoids, and the Hartt collection. A considerable number of valuable gifts were also received, and an extensive purchase made of Messrs. Ward and Howell, of Rochester. The facilities for instruction in the two departments have been increased by the assignment to them of the lecture room and small rooms adjacent in the McGraw building, formerly used by the professor of physics.

THE LIBRARY.

The total number of bound volumes in the library is now 50,453, of pamphlets, 15,095. The number of volumes added during the past year is 2,430, and of pamphlets 545. A very useful addition to the library accommodations has been made during the past term by the establishment of a special reading room for members of the Senior class, and above all, for those engaged in special researches. The large room in the McGraw building formerly used by the architectural depart-

ment has been refitted, furnished with tables and drawers, affording every facility needed for the purpose above named.

BUILDINGS.

The Memorial Chapel, erected during the present year is intended to receive the remains of our departed benefactors, Mr. Cornell, Mr. McGraw and Mrs. Fiske; and is in all respects a substantial and beautiful structure. It is connected to the main chapel by a corridor so arranged that a view of the memorial erected in it meets the eye of all who enter the chapel by the main south porch. Three memorial windows, one erected to Mr. Cornell by his fellow-citizens of Ithaca, and two erected by the trustees to the memory of Mr. McGraw and his daughter, have been put in place. These windows—executed by Messrs. Clayton & Bell, of London, well known among the foremost glass stainers of Europe—are all that we can desire as regards appropriateness, beauty of material, and perfection of workmanship, and are intended to represent the continuity of munificent effort in advancing university education. The Cornell window has as its center, William of Wykeham, who, in addition to other great foundations, established New College at Oxford, in the fourteenth century; at the right, John Harvard, who laid the foundations of Harvard College in the seventeenth century; and at the left, Ezra Cornell, who laid the foundation of this university in the nineteenth century: in the quatrefoil above the head of each is the seal or coat of arms of the institution which each founded. In the window erected by the trustees to Mr. McGraw are represented Sir Thomas Bodley, who founded the great Bodleian Library at Oxford in the sixteenth century, Elihu Yale, who endowed Yale College in the eighteenth century, and John McGraw, who showed so munificent a spirit toward this institution in the nineteenth century: in the quatrefoil above the heads of these are appropriate seals and shields. The window to Mrs. Jennie McGraw-Fiske represents her in the central compartment with the bells of the chime which she gave us at the organization of the university in the tracery about her; at her right is Jeanne de Navarre, who founded the great College of Navarre at the University of Paris in the thirteenth century; and at her left Margaret of Richmond, who established Queen's College at the University of Cambridge, and laid other noble foundations in the sixteenth century: in the quatrefoil above their heads are appropriate seals and shields. The trustees at their last annual meeting appointed a committee to examine and report regarding the securing of a suitable monument to

Mr. Cornell, to be placed by the university itself beneath the window erected by the citizens of Ithaca.

As to additional protection against fire, under the care of the Superintendent of Buildings, Professor Morris, various arrangements have been made which have increased our safety. The additional engine which has been placed at the pumping-house has largely increased the water supply, and a stand-pipe in the McGraw building has diminished the danger there. No provision has yet been made for anything more than a small supply for ordinary purposes at the gymnasium.

STANFORD UNIVERSITY LIBRARY

To avoid fine, this book should be returned on
or before the date last stamped below

MAY 1 1941

APR 24 1948

MAY 1 1948

MAR 23 51

F. JUL 19 1963

F. DEC 12 1984
NOV 30 1984

JUL 18 2000

Pamphlet
Binder
Gaylord Bros.
Makers
Syracuse, N. Y.
PAT. JAN 21, 1908

378.74 .C81eg
Cornell University, its condit
Stanford University Libraries



3 6105 042 853 726

325

